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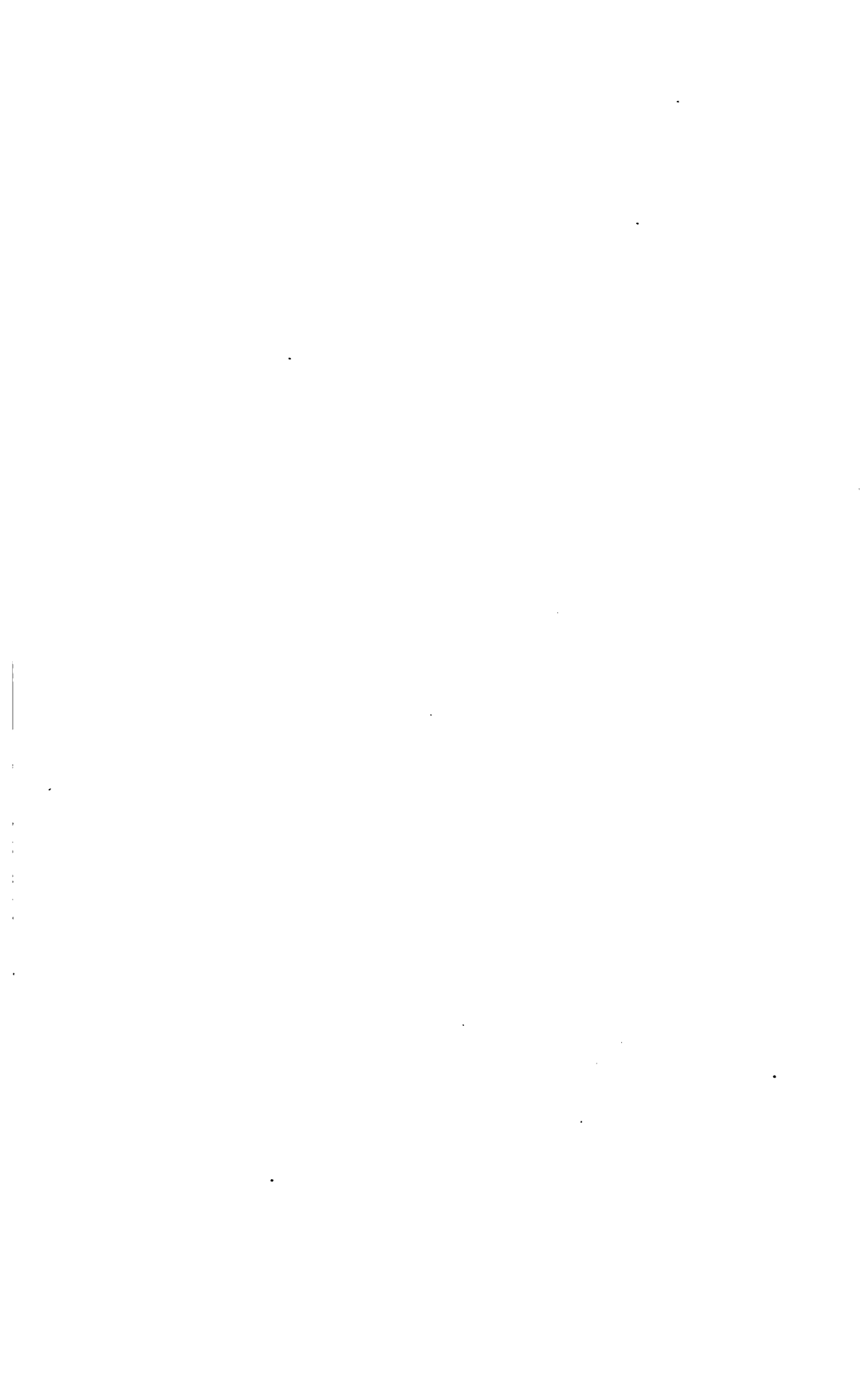
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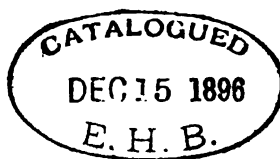
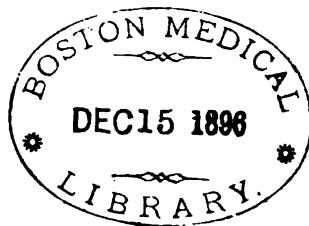
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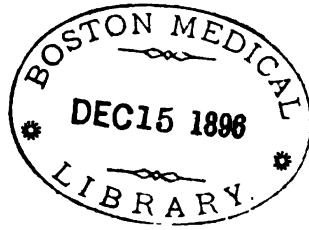
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No. I.

Original Communications.

THE PRESENT STATUS OF THE SPECIFIC TREATMENT OF DIPHThERIA.*

By Professor EDWIN KLEBS, M.D., in Asheville, N. C., formerly of the University of Zurich.

Upon my recent arrival in this country, I found the greatest interest manifest, both in professional circles and by the laity, on the subject of Diphtheria, and the greatest expectations seem to prevail on all sides from Behring's diphtheria antitoxines, as a practically unfailing remedy for the rapid cure of the disease in question.

The reliable information which has reached the profession in this country from Germany being comparatively meagre, and coming, as I did, directly from there, and having through previous and more recent labors been intimately connected with, and interested in, the subject, I was naturally interrogated on all sides as to my views, and especially so by Dr. Shrady, the

editor of *The New York Medical Record*, upon whose request I am pleased to state them herewith for publication.

The use of pathogenic bacteria for the production of curative remedies may be approached in two directions, and for two purposes—first, by using their own secretion products against them for their destruction, the possibility of which is apparent in the dying out of artificial cultures long before the nutrient material is exhausted; and second, we can use these organisms for the production of immunity by their direct introduction into the blood of the animal.

In the first instance, we will have to produce the curative remedy from the culture fluids, in the second from the fluids of animals in whom artificial immunity has been produced.

*Read before the Buncombe County Medical Society.

The question is, which is the surest and easiest method?

The degree of immunity differs materially in the various diseases due to specific disease germs. It is, for instance, very long and lasting in variola, very small and of short duration in diphtheria and entirely wanting in pneumonia.

The second method adopted by Behring, to use the serum of animals in which immunity has been produced, can therefore only be followed for the cure of diseases which secure at least a moderated degree of immunity to persons having recovered from them, and if we accept the results of experiments upon Guinea pigs as applying also to man, diphtheria belongs to this class. In this connection, the clinical experience must not be overlooked that man may acquire diphtheria again after a short period from the time at which all evidence of the previous disease had entirely disappeared. I have lately been able to report several such cases* while the presence for some time of virulent diphtheria bacilli, especially in the nose, after recovery from the disease, without the production of membranes or of general symptoms, speaks, nevertheless, for the production of at least temporary immunity in man also.

However this may be, Behring certainly is entitled to credit for having shown that a great degree of immunity from diphtheria can be obtained in animals by the injection of increasing large quantities of virulent diphtheria cultures into their blood.

According to the results obtained in Europe, the serum from such animals

has certainly a high degree of curative properties, since by its subcutaneous injections all fresh and light cases have been uniformly cured, and the best reports of all cases, severe and light (including tracheotomy cases), have reached as high as 88 per cent. of recoveries.

Some observers, as, for instance, Hahn, of the Friedrichshain Hospital, in Berlin, have expressed themselves more doubtful as to their experience, and it is probable that the variability in degree of individual cases caused the difference in results obtained, however, upon these less favorable reports the injected quantities were increased to 100 c.c. (a little over 3 fluid ounces) especially by Ehrlich, and apparently with good results.

To come to an understanding, two questions will have to be answered:

1. Are there no dangers connected with the use of Behring's serum?
2. Cannot the same results be obtained in an easier and safer way?

As to the first question, the exponents of the serum treatment accept it as a settled fact, that no harm can come from its use; so far as their experiments upon animals show, they are entitled to this belief; but that it is also true as to man, can by no means be accepted as proven. If we will only remember that the very small quantity of organic matter which is inoculated in vaccination against small-pox has undoubtedly been the means of transmission of human diseases, especially syphilis and tuberculosis, and, without in the remotest affiliating with the opponents to vaccination, who, on account of occasional harm, would throw away the valuable and life-saving discovery of Jenner, I recog-

*Wiener Med. Wochenschrift, Vols. 31-38, 1894.

nize, nevertheless, the danger which experience showed to exist, and I believe that, by abandoning human vaccine matter for animal lymph, the profession took an important step for the prevention of incidental infection. But even bovine vaccine matter is not absolutely safe, since we have no guarantee of the absolutely perfect health of the animal; for instance, calves are frequently found to suffer from tuberculosis without recognizable symptoms, and nothing short of the killing of the calves and painstaking autopsies, as I inaugurated in Austria, before the vaccine matter derived from them is used, can be considered as having met all the precautions necessary, and to which persons, especially under compulsory vaccination, would seem to be entitled.

If, however, such precautions become a duty in vaccination where only the minutest quantity of organic matter is inoculated, how much more is it necessary to look to the absolutely perfect health of animals from which we derive serum for the treatment of disease and of which it is proposed to inject 100 cubic centimetres for the cure of diphtheria?

It is, indeed, well known that in the horse, which is especially made use of for obtaining the serum, there may exist latent diseases of an infectious character, for instance, a chronic form of glanders may be confined for a long time to the cavities of the head and nose without occasioning any discharge whatever, and with but little or no glandular swelling at all, but which, nevertheless, may be a source for fatal infection. Only the most careful post-mortem examinations can guard us against the occasional use of appa-

rently healthy, but, nevertheless, diseased animals, and the killing and examination of the animals is necessary before their serum is used for therapeutic purposes. Nothing has, as yet, been said or published on this aspect of the serum treatment, but it should not be ignored because of the value of the animal and the long time necessary before they have been brought to a state of sufficient immunity, and since it is only a question of money, the state should step in and take the matter under its supervision and control.

The exponents and followers of the serum treatment will naturally reply that so far no harm has followed its application. It is, however, not at all shown that this danger has been sufficiently appreciated. Of the severer cases, 29 to 30 per cent. have terminated fatally after applying the treatment, and who can maintain that all the fatal cases were really due to the disease?

I willingly admit that the dangers spoken of may also be diminished to a smaller degree by the painstaking selection of animals, but under all circumstances the obtaining of serum for therapeutic purposes will ever be a very costly method.

This leads us to the second question, Can we obtain a bacterial curative substance for diphtheria in an easier manner, which is safer and cheaper, while equally effective?

I have for a long time followed the thought that pathogenic bacteria, the same as all other living organisms, secrete substances which are poisonous to themselves, of which the retention of excrementitious substances from the kidney and liver of man is a familiar

instance. In the case of pathogenic bacteria this is also manifest, from the fact that artificial cultures die out long before they have exhausted the nutrient substances in their culture media.

This principle governed me in the use of tuberculocidin and antiphthisin for the cure of tuberculosis, and also of antidiphtherine, which latter I have proposed for the cure of diphtheria.

That this principle is correct becomes further evident from a number of quantitative experiments made by me with tubercle bacilli. In the beginning of July of this year I prepared three liter cultures containing 500 cubic centimetres, each of old and new culture fluid of sterilized glycerine-pepton and meat extract. On July 14th I inoculated each with an equal quantity of tubercle bacilli from the same source. The results on August 22 were as follows :

Culture No. 1 contained only old culture fluids; in this culture the tubercle bacilli had grown but little, did not cover the surface, and their weight, after being dried at 28° to 30° centigrade, was only 0.046 gramm.

Culture No. 2 contained 300 c.c. old and 200 cubic centimetres new culture fluid, the tubercle bacilli had grown better, covered the surface more, but only in a very thin layer, without attachment to the side of the flask; their weight, determined in the same manner, was 0.443 gramm.

Culture No. 3 contained 200 c.c. old and 300 c.c. new culture fluid; the color approached more to a normal one, covered the entire surface, and in a few points attached itself to the side of the flask; their weight, determined in the same manner, was 2.586 gramm.

The latter is about half or slightly over the weight of the tubercle bacilli

from a normal culture of equal size and kind.

These experiments show that considerable quantities of toxines must be formed before the growth of the pathogenic germs is entirely prevented—only upon entirely ripe cultures is their growth impossible—but these experiments show further, that the growths have by no means reached the weight which would correspond with the new culture fluid which was added to the old.

If we take round figures, 500 c.c. of new culture fluid should furnish in a certain time 5 gramms dried tubercle bacilli, 300 cubic centimetres, 3 gramms and 200 c.c. 2 gramms. The experiments show, however, that the weights fall short in all. In No. 1 of exclusively old culture fluid only the one-hundredth part was obtained, in No. 2, instead of 3 gramms, I obtained only 0.45 gramm., in No. 3, instead of 3 gramms, only 2.5 gramm., showing that the presence of toxines in the old culture fluids exert a damaging influence upon growing tubercle bacilli.

Quite similar have been experiments with cultures of other pathogenic germs, and we can accept as a law, that the diminished growth and the dying out of bacteria depend upon accumulation of their secretions. The latter substances, which belong partly to the albumen group, are partially toxic, and I distinguish, therefore, soz-albumen and tox-albumen, which must be separated from each other.

The soz-albumen from tubercle bacilli is represented in antiphthisin and in diphtheria bacilli cultures in antidiphtherine. The cost of production of the latter depends entirely upon the facilities for large or small cultures,

and it will be my endeavor to produce it so cheaply that it will be within the reach of the poorest family in the land, as soon as I shall have demonstrated its clinical value. To this end, I expect the arrival of a large shipment from my laboratory in Strassburg about the first of the year, and it is my purpose to furnish the remedy free of all cost for the purpose of making comparative trials of its value with that of the serum of Behring. For present comparison, I have at my disposal a series of 51 cases treated by various physicians in Germany with antidiphtherine. Of these 51 cases, 7, or 13.7 per cent. died, and 44, or 86.27 per cent. recovered; they include both light and severe cases, and such where tracheotomy was required.

A similar series of cases under serum treatment shows 13.3 per cent. of mortality, and 86.7 per cent. of recoveries. The small difference may depend upon the greater number of tracheotomies in my cases. As to the results in the latter, alone, I have 5 deaths in 12 cases, or a mortality of 27.7 per cent., which is as favorable as under the serum treatment.

I have, thus far, applied the antidiphtherine only locally, believing that the process is a local one in the beginning. My investigations have shown me that the diphtheria bacillus is chiefly found in the superficial layers of diphtheritic membrane, and as the latter becomes older in the advancing edges of its formation, the bacillus may there be demonstrated, when none will be found in the central portions.

The application of antidiphtherine has been free from all unfavorable effects whatever, and upon its early and thorough local use depend its

prompt and curative effects. Upon a suitable cotton-wrapped probe the remedy is applied upon the diphtheritic patch, the latter having first been cleansed with dry cotton, gently pressing and rubbing the soaked cotton upon the diphtheritic and suspected patches, and leaving it in contact as long as the patient can comfortably hold. We repeat this two or three times, and thereafter swab out the entire pharynx and fauces with the remedy; great gentleness and at the same time thoroughness are essential, especially with very young children; in the latter we may, however, touch the greater part of the fauces and pharynx with the cotton, at one time, holding the latter in a pincette with which we may also pass upward behind the velum and naso-pharynx if we suspect trouble there. If none of the patches have been omitted the temperature falls in the course of three to five hours and a sense of well-being returns; if the fever does not subside, the application must be repeated and new patches be looked for; in their absence the application must be made in the nose and naso-pharynx also, where patches may be hidden from recognition.

A new rise of temperature indicates a new development either upon the old or a new focus, and the applications must thus be repeated more or less frequently, according to the course the cases pursue.

Under the most favorable course two or three applications should be made daily until all evidence in the throat has disappeared. The membrane soon loosens and is cast off, leaving a smooth, shining surface covered with epithelium, a very important result, as thus streptococci infec-

tion is prevented. The remedy may also be used subcutaneously or per rectum, especially in severe or older cases. Beginning with 1-10 of a cubic centimetre, we reach 1 cubic centimetre in nine hours, after which the same quantity is repeated two or three times a day or still increased if necessary.

Animals bear the subcutaneous use without any unfavorable effect. For the present, in the human subject, I recommend that the action of the human heart be carefully observed during the systematic use of this preparation.

Winyah Sanitarium, N. C., 1894.

THE DIAGNOSIS OF SYPHILIS OF THE NERVOUS SYSTEM.

By W. B. PRITCHARD, M.D., Adjunct Professor Mental and Nervous Diseases
New York Polyclinic.

No affection of the nervous system is so protean in its symptomatic manifestations as syphilis. Epilepsy, locomotor ataxia, meningitis, tumor, myelitis and encephalitis, neuritis and various paralyses due to thrombosis and endarteritis are among the organic conditions of disease which quite often have their sole origin in syphilis. The various sclerosis may be due to this cause. Among mental diseases, general paralysis of the insane is a type well known as standing in the relation of effect from this cause in association or not with other factors, while I have seen symptomatic mania and melancholia, especially the former, dependent upon syphilis as demonstrated by the history and the quickly curative action of antisyphilitic remedies. Dementia is a well-known terminal stage of many forms of cerebral syphilis. In the realm of functional diseases of the nervous system hysteria itself cannot produce a broader or more varied symptom picture. Pseudo-chorea, tremors of all types, cephalalgia, insomnia and various other neuroses, have been again and again demonstrated as being due to either the pri-

mary toxic agency of this disease or to some secondary nutritive change which resulted from it. With such a kaleidoscopic field of action—a symptom picture so varied—it might be inferred that the determination of syphilis as a cause in any given case, would be difficult, and yet the facts, upon analysis, demonstrate, to my satisfaction, at least, that quite the opposite is true. Nothing in neurology is easier, in the majority of cases, than the recognition of syphilitic types of nervous disease in the adult. That this is a most fortunate fact, is evident in the clearer indication afforded for treatment and the relatively far better prognosis in the majority of instances. An admitted history of infection is not always reliable. Certain forms of nervous disease may coexist with syphilis in an individual without any relationship of cause and effect. It is easy for a layman to be in doubt as to whether a given local lesion was true chancre or innocuous. A denial of syphilis should never be considered unless absolutely consistent with symptomatic facts, and this applies especially to married women and cases of

suspected heredity. The fact that syphilitic forms of nervous disease are comparatively easy of recognition, is of no value unless you are able to identify a given case with absolute independence, so far as the patient's admissions are concerned. I believe this can be done with comparative ease in most cases, especially in adults. In children, in whom we meet only the inherited disease, the diagnostic data are different in some important respects—some of much value are often absent, while others are present which are rather peculiar to the inherited disease. I do not recall a single symptom which is diagnostic or of much value alone. It is by the association of several symptoms only that we can determine that a given case is of syphilitic origin. The symptomatic data upon which such diagnosis can be made are as follows :

Headache.—This I have found present in some degree in 44 out of 50 cases. In many it was violent, even to the production of delirium, in others dull. In a few cases it was continuous for weeks. In the majority of cases it was absent entirely during the forenoon, coming on towards evening and growing worse as the night advanced. In a larger proportion of cases the pain was in the back of the head, though the location is not constant or diagnostic. In four cases there was tenderness on percussion of the skull, and in one case this tenderness corresponded to the probable location of a gumma or node. These headaches, in cases followed by paralysis, due to cerebral disease, always disappeared upon the onset of paralysis. In several instances they reappeared after a time, always interpreted by me as a danger-

signal, indicating a renewal of hostilities on the part of the enemy.

Disturbances of Sleep.—A tendency to somnolence I have found characteristic of late cerebral syphilis, associated very often with progressive dementia. In the early stages of syphilitic diseases of the nervous system insomnia is far more common. As a matter of fact, I have never seen somnolence in the early disease except in association with acute symptoms, as in the pseudo or actual apoplexies, and it is not then diagnostic. The insomnia is associated with the headache almost invariably, and is peculiar in that it occurs during the forepart of the night, the patient lying awake until 4 or 5 o'clock in the morning. In a few cases slight wandering delirium or hallucinations may be present. The insomnia of melancholia simplex is just the reverse, occurring in the second half of the night. Syphilitic insomnia, as a rule, is absolute while it lasts. The insomnia of neurasthenia consists of alternations of sleeping and waking throughout the night, leaving the patient tired and unrefreshed in the morning, while the two or three morning hours of sleep obtained by the syphilitic, enable him to meet the beginning of the day with comparative vigor. As with the headaches, so the insomnia may leave abruptly upon the onset of an explosive seizure, as in hemiplegia. Its return possesses the same warning significance.

Vertigo.—This is usually of a simple type, and is present in association with the headaches, not occurring, as a rule, in the intervals when the headache is absent. The vertigo may at times pass into momentary unconsciousness. This occurred in one of

my cases at a time of great mental excitement, and in another case from exposure to intense heat.

General Weakness, Mental and Physical.—I have been struck with the constancy with which patients affected with nervous syphilis complain of a general muscular weakness, a malaise which may be totally inconsistent with the appearance of the individual. They show an indisposition for exertion in any direction, a sluggish physical and mental state which is out of proportion to the complaint made or to the general appearance. Occurring with the headaches and insomnia described, with the vertigo, and followed by paralysis, this condition becomes one, in my mind, of much diagnostic importance.

Tremors.—Localized or general tremors were present in 28 of the 50 cases which furnish the statistical data for this paper. They were most often of the hands on extension, next of the tongue, sometimes general, corresponding in many cases to the location of the disease. Usually the tremor was greatest during the period of greatest intensification of the headache. When the tremor was limited to one limb it was almost invariably a precursor of paralysis in that limb.

Distribution of Paralysis.—It is exceptionally the case that paralysis resulting from syphilis follows a classical or standard type. The distribution is often erratic, sometimes bizarre, nearly always indicating the presence of more than one focus of disease. As is well known, the ocular muscles are especially prone to involvement. The third nerve is so often attacked that a ptosis or external strabismus occurring in an adult suddenly, sug-

gests syphilis as a cause at once. A striking feature in paralysis affecting the limbs, due to syphilis of the brain, is the gradual onset observed in many cases, preceded by attacks of different forms of paresthesiæ and with tremors. The paralysis may be transient, appearing and disappearing several times before becoming permanent. The same phenomena may be observed in paralysis due to tumor, which is not specific, though in such cases the paralysis remits rather than intermits, as in syphilis.

To summarize, briefly, these various diagnostic symptoms in syphilis of the nervous system, we have headaches, characterized by nocturnal exacerbations; associated with insomnia, present during the first half of the night; vertigo with the headaches, sometimes amounting to transient unconsciousness; tremors paresthesiæ and weakness, often affecting a limb which is afterwards paralyzed; a general condition of profound subjective physical weakness and mental sluggishness, with finally paralysis of one or several muscles erratic in distribution, usually of gradual onset, varying in degree from day to day, the headaches and insomnia disappearing, as a rule, immediately upon the onset of paralysis. This combination of symptoms occurring in an adult is as nearly positive evidence of syphilis as a cause as is any axiom in medicine. Should there be in addition an admitted history of infection or concomitant lesions in the skin, bones or viscera, the diagnosis is absolute. The therapeutic test is of value—great value—but it is not absolute. I have seen cases of non-specific tumor and of tubercular meningitis very greatly improve tempora-

rily while taking mercury or iodide of potassium. It is scarcely necessary to emphasize the necessity for exclusion in making a diagnosis of syphilitic disease of the nervous system. The diagnostic data enumerated are applicable to all forms of central specific disease of the nervous system, both cerebral and spinal, though less constant in the spinal cases. Syphilitic disease of the peripheral nerves alone is rarely observed. The explanation, to my mind, of the fact that these symptoms are common to both cerebral and spinal syphilis lies in the belief that we do not meet with disease of either brain or cord alone, but that in all cases both are involved, though in varying degree, of course. Producing disease of the nervous system, as it does, through the medium of the blood-vessels, syphilis is never limited to a circumscribed area, and this is true even where a post-mortem reveals by gross examination only a single gumma. I have seen headache and insomnia with vertigo precede for several weeks a paraplegia due to a specific meningo-myelitis, not associated with any focal cerebral symptoms whatever. I have found these same symptoms present in the early histories of 4 cases of locomotor ataxia, and I do not believe that syphilis can produce symptoms of organic disease of either brain or cord alone, but that in all cases both are more or less involved, usually through the blood-vessels supplying the meninges primarily.

The following cases afford examples of the value of these diagnostic data in several varieties of both cerebral and spinal syphilis. They also demonstrate the extraordinary value of the only rational and successful method of

treatment, that of iodide of potassium in doses only limited by the resistance of the disease.

Case 1.—H. L., Swede, age 37; proprietor of saloon and sailor's boarding house. Was called to patient at night in consultation. He had been ill, though not confined continuously to bed, for five weeks.

The physicians who had been in attendance had variously diagnosed the case as malaria, Bright's disease and softening of the brain. Patient was in bed and did not notice my entrance, although a stranger. He was awake, but seemed in a doze, and would reply to questions slowly, if at all, and often incorrectly. His cerebral reflexes were, in fact, so dulled as to suggest dementia. He was very weak, unable to hold his head up from the pillow. I found no actual paralysis, though muscular action was everywhere weak, and tactile pain sense seemed dulled generally. He passed urine and feces unconsciously. It was useless to question him, but from his wife, an intelligent Swedish woman, I learned the following facts: Three or four months previously he had complained much of headaches, especially if in the sun or a hot room. The headaches at first came irregularly, but after a time they occurred only in the evening, and he felt worse in every respect in the evening, being able to attend to his duties only during the forenoon. A few weeks after the headaches began he began to suffer from insomnia, at times getting no sleep at all until 5 or 6 o'clock a. m., when he would doze for an hour or two. One night he became very much excited and nervous and threatened to kill himself. He grew weaker gradually

from day to day, and finally was confined to his room and much of the time to his bed, all the symptoms persisting and a state of mental sluggishness developing in addition. Upon these facts I made a diagnosis of cerebral syphilis, probably diffuse endarteritis, and put the patient at once upon 25-drop doses, three times daily, of a saturated solution of iodide potassium. This was increased 10 drops daily until the patient reached the dose of 185 drops, or about 165 grs., three times daily, or a little more than an ounce of the iodide a day. He made a perfect recovery, and has had no relapse during the two years which have since elapsed. I did not ask this patient as to syphilitic infection until recovery was well advanced. He admitted syphilitic buboes.

Case 2.—H. W. J., age 21. Private patient. Youngest of four children, all living and healthy. Contracted syphilis at age of 17. For six months or more he has suffered from severe headaches, always worse towards night. As he spent his nights usually gambling or in other dissipations, insomnia was not easy to establish. He often found himself, however, unable to sleep in the day following a night out, and stated that he averaged much less sleep than formerly. The headache was always worse over the right temporal region, and was associated with frequent attacks of vertigo, often causing him to grasp surrounding objects for support. He was very nervous and tremulous at times, being unable to command his hand in writing. He complained much of general weakness, and had occasional attacks of numbness in the right arm and face, which would continue until he had

taken two or three drinks of whiskey or brandy. July 1st, while standing in a drug store, where he had gone to get something to relieve his headache and vertigo, he suddenly fell to the floor, but did not lose consciousness, and in a few moments was able to get up and walk home with assistance. The entire left side was affected with a decided hemiparesis. In half an hour he was all right, and went down town alone, but was brought home in a cab, a few hours later, partially paralyzed as before. Next morning the hemiplegia was completed, and he lay in bed a week. He got better gradually, and three weeks later there was scarcely any evidence of the paralysis. August 12th he had another attack, also without unconsciousness, but with a resulting hemiplegia which was complete, but of the right side and with marked though incomplete motor aphasia. Under iodide of potassium, carried up to 600 grs. daily, he improved and would have made a perfect recovery but for his incessant and extreme dissipations and excesses. He did make, subsequently, a good recovery under the same treatment in the hospital of a penal institution to which he was committed as a criminal. His disease, probably multiple meningeal gummata, caused a mental perversion which was extremely interesting from a medico-legal standpoint. While retaining his intelligence, and, indeed, seeming to have developed unusual shrewdness, he became a moral pervert without sense of shame, a liar and a thief. He was twice arrested for selling hired bicycles and for stealing and selling a horse and wagon he had hired for a drive, and again arrested under very suspicious

circumstances, in connection with a most daring robbery.

Case 3.—Peter P., sailor and hotel-keeper, age 38. Was seen by me on September 10th, 1893. Always in good health until a few months previously, when he began to suffer from general weakness and occasional vertigo. He became mentally nervous, somewhat irritated and restless.

Occasionally he had severe headaches of a dull character, almost always during the latter half of the day or at night. He claimed never to have suffered from insomnia, but as he kept an all-night hotel and saloon, this fact may have some bearing upon its absence. His general weakness and debility caused him to take a trip abroad with the hope of benefit. He sailed for New York in August.

Twice during that month, while abroad, he had seven attacks of vertigo. While on board ship, immediately following exposure on deck after a hot bath, he felt a sudden dead numbness in the legs from the hips down, which became quite weak, especially in going up and down stairs. His gait became shuffling and unsteady, bowels constipated, urine dribbled and sexual power much impaired, though not lost. He also complained of a band-like feeling at about the waist-line (cincture symptom). Physical examination showed a decided paraparesis most marked in the right leg, exaggerated knee-jerks, ankle-clonus, marked Romberg and ataxia of locomotion. Tactile and pain-sense both much impaired, being almost completely abolished in the right leg, on dorsum of foot and anterior thigh. Temperature and muscular sense also impaired, though in less degree. The motor paralysis was

greatest in the flexors, and the right leg showed slight atrophy, but without electrical change. I made a diagnosis of syphilitic meningo-myelitis. He admitted syphilis in 1883, contracted in China, for which he was treated by a ship's captain less than six months. Under spinal galvanism and peripheral faradism and potassium iodide, carried up to 260 grs. three times daily, this man made an excellent recovery and has been busily engaged as captain of a fishing schooner for the past four months.

Case 4.—Mrs. L. C., age 40. Patient treated at my clinic. Has borne four living children, two dying in infancy. Has had two miscarriages. Both living children are cachectic. Patient always well until September, 1889, when she began to suffer from pain in right lower jaw. She had never had facial pain or neuralgia before, though for several weeks she had been having headaches, with nocturnal exacerbations, associated with insomnia and vertigo. Several teeth were extracted, but with no relief, the pain rather increasing and gradually involving the entire right side of the face. About five weeks after its onset, the pain suddenly left and simultaneously the right face was found to be paralyzed and anesthetic. All the branches of the 5th and 7th nerves were paralyzed, and a few months later she lost vision in the right eye through a neuro-trophic paralytic ophthalmia. No other cranial nerve was affected, nor were the extremities affected. This woman did not know that she had ever had syphilis, or that her husband, who had been dead some years, had ever had the disease, but the history of two miscarriages, two children dead in infancy from marasmus and two living, show-

ing a cachectic scrofula appearance with a paralysis preceded for several weeks by nocturnal headaches, insomnia and vertigo, in conjunction with the curious clinical fact that most cases of 5th nerve paralysis which are not traumatic are due to syphilis, led me to make a diagnosis of a specific lesion

at the region of the Casserian ganglion. The diagnosis was largely confirmed by the results of treatment, 250 grains daily of kali iodide, causing the paralysis to disappear quite markedly, though vision was not, of course, at all benefited.

347 W. 58th St., New York City.

SUCCESSFUL TREATMENT OF A CASE OF RATTLESNKE BITE.

BY E. G. GOODMAN, M.D., El Paso, N. C.

On the 1st of May, 1894, David Grange, a mulatto, aged about 25 years, was bitten by a large rattlesnake on the radial side of the right hand, over the interspace between the first and second metacarpal bones. The entrance of the snake's teeth caused punctures large enough to admit a small straw to the depth of a half inch.

When first seen by me, about two hours after the accident, the patient's tongue was swollen until articulation was indistinct; the radial pulse was weak and thready, and soon ceased to be felt entirely.

One of the first symptoms noted by the patient was a green appearance of every object, which symptom was experienced in a few seconds after being bitten, and, so far as I can learn, this green vision is a constant symptom of snake-bite as soon as the poison is carried by the circulation to the brain.

My first treatment was to relieve the intolerable pain by the use of morphine, and to rouse the flagging circulation by the use of ammonia, strychnine and atropine. I also applied stronger water of ammonia and strong acids to the wound; but this was mere

formality, as the poison had long passed beyond the reach of local remedies.

Knowing from the results of the dissecting room, that arsenious acid has the power to neutralize, to a great extent, the poison of a dead animal fluid when a cadaver is well injected with its solution, it seemed rational to conclude that it would possess the same power to neutralize the poison of a living animal fluid.

With this purpose in view I gave 10 drops of Fowler's solution, and ordered 5 drops of the same to be given every two hours day and night.

When I saw the patient the next day, the arm was frightfully swollen; large livid spots extending along the course of the lymphatics; many large blebs, measuring from one to two inches in diameter, would form in a few hours, and when the fluid was evacuated there would be left a jelly-like mass projecting above the surrounding surface. The swelling extended to the neck to such a degree as to render swallowing difficult. There was intense pain, also much nausea and vomiting. A hypodermic of morphine and atropine relieved both of these symptoms.

I then ordered the solution of arsenic to be increased to 10 drops every two hours, and continued till my return. When I saw the patient the next day, there was some improvement in the constitutional symptoms, but the appearance of the hand and arm is not easily described.

The amount of arsenic that had been taken in the previous forty-eight hours had not caused the slightest symptom of arsenical poisoning.

With the appearance of improvement I began a gradual reduction in the amount of arsenic, which, however, was continued several days before being suspended entirely.

There was considerable sloughing of the hand, especially about the place of insertion of the poison.

The local treatment consists in cleansing the parts with boric acid solution and the application of carbolized oil.

After the space of two months the patient could use his hand to some extent; and after four months the hand was nearly normal in appearance, except a depression at the place where the poison entered and sloughing was greatest. When the patient was last seen by me there was some stiffness of the fingers and loss of sensation on the dorsal surface of the thumb, index and middle fingers.

Society Reports.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Seventh Annual Meeting, held in Charleston, S. C., November 13, 14 and 15, 1894.

[By our Special Reporter.]

FIRST DAY—MORNING SESSION.

The Association met in Artillery Hall, and was called to order at 10 a. m. by the President, Dr. C. Kollock, of Cheraw, S. C.

Prayer was offered by the Rev. Dr. Campbell, of Charleston.

An Address of Welcome was delivered by the Mayor of Charleston.

Dr. Brodie, of Charleston, followed with an Address of Welcome on behalf of the local profession, and President Kollock responded in behalf of the Association.

Dr. Wm. E. Parker, of New Orleans,

read a Memorial Address on Dr. Warren Stone, which was prepared by the late Dr. A. B. Miles, of New Orleans.

He said as Professor of Surgery in the University of Louisiana for thirty-six years, as Surgeon to the Charity Hospital for thirty-nine years, and as general practitioner from 1832 to 1872, whose experience covered 18 epidemics of yellow fever and cholera in New Orleans, the name of Warren Stone is impressed indelibly upon the local history of a remarkable period. In his surgical clinics he taught the advanced surgery of the Old School. He taught

the principles of drainage in suppurative arthritis, in hepatic abscesses and in pyothorax. He advocated resection of the ribs to facilitate the drainage in suppurative pleuritis. Whether in operative work or in the liberation of pus, he made free incisions. He was among the first in the cure of aneurism of the vertebral artery. In the surgery of the arteries he was an expert. During fourteen years of his work at the Charity Hospital he operated without an anesthetic. Realizing the difficulties under which he labored, he was ready to welcome the new era in surgery then about to dawn. The lives of many men are mirrored in their books and published papers, but the writings of Dr. Stone give but meagre knowledge of his work or his position as an authority on surgery in the South. No man in the profession of Louisiana was ever so universally beloved as Dr. Stone. In his relations with other physicians he was gentle and considerate, never intrusive or aggressive. Many of the physicians in Louisiana to-day who knew him in life speak of him affectionately as "Old Stone," and always with some expression of endearment and respect.

His position in New Orleans may be compared with that of Physick in Philadelphia, Mott in New York, Lister in London, and Velpeau in Paris.

Dr. J. B. S. Holmes, of Atlanta, read a paper entitled *Gonorrhœa in Women*.

He said there was no disease that affected women that should engage the serious and thoughtful consideration of the physician more than gonorrhœa. The author then, after quoting Tait and Sinclair on gonorrhœa, said he had no doubt but that many of the

chronic diseases of the ovaries and tubes that came under the observation of gynecologists were due to that disease. In the majority of cases the poor woman was ignorant of the fact that she had had or has any specific disease. Indeed, her husband might tell the physician that months, or even years before his marriage, he was a subject of gonorrhœa, which was cured and had since shown no evidence of a return.

The essayist could conceive of nothing more dangerous than curetting the uterus in the presence of immense pus-tubes with pelvic adhesions. The drawing down of the organ necessary for curettage may break up pelvic adhesions and pour out the contents of pus sacs into the peritoneal cavity, which would result, in the majority of cases, in death to the woman. If her life is saved at all, it will only be done by a prompt abdominal section, with thorough irrigation and drainage of the abdomen. Then why not, in the first instance, when pus is detected, promptly remove it by surgical interference. We then treat the woman rationally and give her the very best and only chance of relief and restoration to health.

Dr. George J. Engelmann, of St. Louis, called attention to the importance of differentiating between latent or chronic gonorrhœa and the acute form of the disease. He does not look upon acute gonorrhœa as a dangerous disease in women, but he does the latent or chronic form. He has not seen serious results from the acute form, but it is the infection which is not observed from a supposedly cured gonorrhœa in the male which produces the suffering in women.

Dr. Bedford Brown, of Alexandria, Va., took exception to the statement made by Dr. Engelmann in regard to the non-danger of acute gonorrhœa in females, and cited the case of a female in which acute gonorrhœa ran its course, terminating finally in fatal nephritis. In this case there was first urethritis, then cystitis, ureteritis, pyelitis and acute nephritis.

Dr. Richard Douglas, of Nashville, thought Dr. Engelmann had sounded the keynote, in that there is quite a difference in the infection from acute gonorrhœa and the latent form of the disease. Infection from the latter was a mixed infection, not only with the gonococcus, but with the streptococcus and staphylococcus also, and that accounts somewhat for the virulence of the trouble. That gonorrhœa is the cause of uterine fibroids, he could scarcely accept, although he thought Dr. Price was the author of that idea.

Dr. Joseph Taber Johnson, of Washington, D. C., said in the treatment of pus tubes the result of gonorrhœal infection, the very radical suggestion of Dr. Holmes was correct, viz: to resort to abdominal section, as he was satisfied that gonorrhœal pus tubes were incurable by conservative measures. In addition to the removal of pus tubes, if present on both sides, the uterus should be removed also, because it is through the infected mucous membranes of the uterus that the tubes themselves have become infected.

Dr. Wm. P. Nicolson, of Atlanta, said the general surgeon was concerned in the treatment of gonorrhœa as well as the specialist. We are told that the urethra has been inflamed and subsequently restored to its normal condition, and yet years afterwards the man

transmits gonorrhœa to his wife. It is hard for him to accept such a doctrine. If a man goes for months and years with a gonorrhœa absolutely producing no effect whatever, if he is not well, how are we to tell him that he is not? We are told by the essayist that gonorrhœa is contracted by the female when there is absolutely no evidence whatever of disturbance in the urethra of the male, and that there is no trouble by which he can propagate disease.

Dr. A. M. Cartledge, of Louisville, thought the essayist failed to differentiate between cases of subacute and chronic salpingitis and the cases of acute infection from gonorrhœa. He threw out the suggestion that physicians were not fully conscious of the great prevalence of artificial abortions in young married women of the better as well as lower class, and he believes that in these cases of secondary infection from pathogenic organisms we have a more fertile source for the development of tubular and ovarian disease than from gonorrhœa.

Dr. W. E. B. Davis, of Birmingham, Ala., considered the disease a dangerous one. The views of Tait, however, in regard to gonorrhœa were extreme. We have a frequent cause of tubal disease in the puerperal state, in delivery at term or in premature deliveries, frequently in artificial abortions, brought about by mechanical means. More or less infection occurs after all cases of abortion, but if the patient is in good condition at the time, she will not be materially affected. If we have a soil that is favorable for the development of septic germs, we will get a severe inflammation—a mixed infection.

Dr. W. D. Haggard, of Nashville,

Tenn., desired to place himself on record as opposed to the removal of the uterus and tubes for pyosalpinx as the result of gonorrhœa, believing that by dilatation and judicious curetting patients can be relieved of an endometritis produced by gonorrhœa.

Dr. John D. S. Davis, of Birmingham, Ala., emphasized the importance of using the microscope in connection with gonorrhœa and carefully examining the pus. Experience has demonstrated that the latent effects of gonorrhœa were not always directly due to the gonococcus *per se*, but to a mixed infection; that is, we have an inflammation as a result of the gonococcus, which is fired up by another infection from the streptococcus. When we have a mixed infection, we have as a result pus tubes, suppurative peritonitis, and finally death of the patient, if surgical interference is not resorted to.

Dr. Hunter McGuire, of Richmond, Va., entered a protest against the doctrine that a man can have gonorrhœa and not get well. As for the idea that a man who has had gonorrhœa should not get married, it is preposterous. He had seen thousands of cases get well and remain so.

Dr. Holmes, in closing, said he was aware that many cases of acute gonorrhœa resulted in no secondary trouble, because they were recognized early and cured by judicious treatment. He wished to be understood as not endorsing the views of Dr. Tait, that gonorrhœa in the male was never cured, but he insisted that general practitioners were often too careless in advising patients to get married that have been the subjects of gonorrhœa.

Some Cases of Acute Intestinal Obstruction, with Deductions, was the

title of a paper read by Dr. A. Morgan Cartledge, of Louisville, in which he reported six cases, three of which terminated fatally. The author said that the limited number of operated cases reported in his paper, together with an individual observation of probably as many more not subjected to operation, conform to the accepted belief of the hopeless nature of acute intestinal obstruction unless treated by early laparotomy.

While the author does not contend that we can dispense with opium in the treatment of these cases, certainly where obstruction is in the least suspected we should withhold its use until a diagnosis can be made. Certainly the practice of masking every abdominal condition characterized by pain with opium is far too prevalent, and its practice gains additional calamity as surgery advances in knowledge, which offers relief of these very conditions concealed by the cloak of opium and ignorance.

The practical and cardinal points in avoiding a fatal delay and making an early diagnosis, are to be found in: Sudden abdominal pain; a rapidly accelerating pulse; the vomiting of much more fluid in a given time than is taken by the mouth; the green tinged character of this fluid; the anxious expression of countenance when no opium has been used; the fact that, although enemata may be stained by the contents of the colon, there is no expulsive movement of the bowels and the passage of no gas.

The burning question now is to educate men to know that action, to be successful, must be quick; that timely aid depends upon the man who first sees the case; that when a physician

from any reason suspects that a patient's bowels will not move, he should drop everything else and center all his time and attention upon that patient. He should not waste his gray matter by trying to determine if it be a probable intussusception, volvulus, band, diverticulum or what not—leave that for the operation to determine; it is the most reliable way to find out.

SECOND DAY—MORNING SESSION.

Dr. F. W. McRae, of Atlanta, Ga., read a paper entitled *Hernia of the Diaphragm, with Report of a Case*. The author brought this subject before the Association for consideration, not alone because it offered an inviting field for experiment and investigation, but also because of a recent interesting case where, without warning, he was forced to meet the emergency without time for research into the literature of the subject, and, while he was not then sustained by a knowledge of the opinions of the leading authorities, he finds from subsequent investigation that the course pursued was in accord with the recommendations of such eminent authorities as Laennec, Bowditch, Guthrie and Marcy. In the case reported strangulation had occurred five days prior to the doctor seeing him. Had an early diagnosis been made, the author feels sure the strangulation could have been relieved and the patient's life prolonged. The opening in the diaphragm was accessible, and he believes it could have been closed with a fair chance of permanent recovery. The case serves to emphasize the necessity for early operation in all

cases of acute obstruction of the bowels.

Dr. Louis McLane Tiffany, of Baltimore, read a paper entitled *Gunshot Wound of the Spleen and Kidney; Abdominal Section; Hemostasis by Deep Suture; Recovery*.

The patient was a male negro, 20 years of age. Two hours previous to entering the University Hospital, on March 21st, 1894, he had been shot with a small calibre rifle from a distance of twenty feet, the weapon being directly behind him and he being erect. His urine was slightly albuminous; the pulse, temperature and respiration were normal. There was a bullet wound three inches to the left of the spine, just below the last rib, from which blood oozed. After properly cleansing the wound it was enlarged, and it was found that the kidney had been injured and that a bullet had passed onward, presumptively into the perineal cavity. The wound was filled lightly with gauze by the resident physician, and Dr. Tiffany was notified. External examination of the abdomen by touch and palpation revealed nothing, not even painfulness.

The patient was anesthetized, laid on the belly, and the wound, after being enlarged, was examined. The upper portion of the left kidney was perforated, and dark blood flowed from the peritoneal cavity beyond. This large wound was filled with gauze, the patient turned on the back and the abdomen freely opened along the left semi-lunar line. A moderate amount of blood was free in the peritoneal cavity. No wound of the intestine could be discovered, but the spleen was found perforated, blood flowing freely from the wound of entrance, as

well as from the wound of exit; the latter wound, in the concavity of the organ, was slightly the larger of the two.

The perforation through the spleen was about three inches from the free lower border. Unwilling to subject the patient to splenectomy, the essayist attempted to arrest the bleeding in the following manner: A long needle, threaded with silk, was passed entirely through the spleen central to, and parallel with, the bullet track; the long ligature was then tied over the free border of the organ so as to press the surfaces of the wound together tightly enough to arrest bleeding, yet not to tear through the splenic tissue; the

ends of the ligature were cut short, the peritoneal cavity cleaned by copious irrigation with hot water and the abdominal wound closed. The kidney was tamponned with gauze through the dorsal wound. Convalescence was uneventful. The anterior wound healed by primary union; urine flowed from the dorsal wound for two days only, union by granulation taking place. The patient left the hospital well on April 22d.

In this case, the wound being small, hemorrhage was not profuse, and no abdominal organ save the spleen was wounded.

To be continued

STATED MEETING OF THE BUNCOMBE COUNTY MEDICAL SOCIETY.

Held December 3, 1894.

The Society was called to order at 8 o'clock p. m. by the President, Dr. Burroughs.

The following were elected officers for 1895:

President—Dr. Purefoy.

Vice-President—Dr. McBrayer.

Secretary and Treasurer—Dr. Mil-lander.

Member of Council—The retiring President, Dr. Burroughs.

Dr. von Ruck introduced to the Society Professor Dr. Edwin Klebs, of Germany, whom he had invited to this country for 'the purpose of obtaining his aid and counsel in the specific treatment of tuberculosis in his Institution, the Winyah Sanitarium.

The paper for the evening being on

Diphtheria and the author declining to read, in order to have the opportunity of hearing Professor Klebs on this subject, the latter was invited by the President to address the Society on Diphtheria, with especial reference to the recently advocated treatment with Antitoxine Serum.

Professor Klebs then requested Dr. von Ruck to read for him a short communication which he had just prepared at the request of Dr. Shrady, for publication in the New York *Medical Record*, and which is published in full in another part of this issue. (See page 1.)

At the conclusion of the address, Professor Klebs said that he should be pleased to answer any question which the members might wish to ask, and

showed photographs of the cultures referred to, from which the diminished growth of pathogenic germs, in the presence of their special toxins, was very apparent.

Dr. Battle then asked Professor Klebs his view as to the disease being primarily a local or constitutional affection?

Professor Klebs: This question was discussed for the last time at the Congress of Genoa, Italy, in the earlier part of the eighties, and just before I demonstrated the diphtheria bacillus as the specific cause of diphtheria. The theory of the constitutional origin of diphtheria came more particularly from the French School, but since the discovery of the specific germ it has been entirely abandoned, even in France, and I am not aware that for some years past such an origin has been entertained by either clinical or scientific authorities.

Dr. Watson related two cases in which no membranes were visible at any time in the throat, and in which the symptoms indicated diphtheria with rapid fatal termination, and he asked if a constitutional origin could not be assumed in such cases?

Dr. von Ruck replied for Professor Klebs that such cases have been observed in a number of instances and that toxins may be produced in large quantities by the specific germs, and the patient may die of severe intoxication, even before membrane formation has occurred. In many such instances, however, diphtheritic membranes were found in the cavities of the nose and naso-pharynx upon post-mortem examination, and their possible presence must not be lost sight of in all cases of diphtheria, with or without the evidence of the disease in the form of

membranes in the visible portions of the throat.

The Society then tendered its vote of appreciation and thanks to Professor Klebs, and adjourned.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.—Borger reports in the *Deutsche Med. Wochenschrift*, November 29th, the results of 30 cases of diphtheria treated with Behring's antitoxin at Griefswald. Of the 30 cases 28, or 93 per cent., recovered. In five of the cases tracheotomy was done, with four recoveries, or 80 per cent. According to Borger, the disease at Griefswald is usually comparatively mild during the autumn season. These cases were under treatment in August, September and October. Kuntz, in the same journal for December 6th, reports 25 cases treated at the Hospital in Oschersleben, with 22 recoveries, or 88 per cent. In two of these tracheotomy was done, and both recovered.—*Boston Med. and Surg. Jour.*

A THIRD FATAL KNOCK-OUT.—A telegram from New Orleans reports the death of a pugilist from the effects of a blow received on the point of the jaw during a sparring contest. The victim did not regain consciousness, and died about ten hours after the accident. As the result of an autopsy the coroner's verdict was that death occurred from concussion, probably due to the head striking the hard floor. This is the third fatal sparring accident reported within four weeks.—*Ibid.*

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

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Editorial.

THE NEW YEAR.

Time has marked another circle and another chapter in the history of the world has been completed. As we pass another mile-post on the journey of life, let us not look back to deplore the rough places and the difficulties that have been encountered and which are now behind us, but gaining wisdom by experience, let us keep our gaze upon the untrodden path before us, and go on with greater determination than ever, believing that the heights that others have scaled we can scale also. We live in a truly favored land, and have much for which to "thank God and take courage." While we have enjoyed peace and bountiful

crops and escaped all dire calamities, some have lost their rulers by the assassin's knife or by death, others have been scourged by pestilential disease, and others still have been plunged into disastrous and cruel war.

We congratulate our readers on the bright prospects for a continuance of these blessings, and extend to them our most hearty good wishes for their happiness and prosperity during the year that has just dawned. But may we all remember that most of a physician's prosperity depends upon other people's misfortunes; so let our satisfaction in our success be tempered with sympathy for those whose sufferings

have brought that success. The doctor who, at the end of the year will have most cause to thank God that he has lived, will not be he who has earned and collected the greatest number of dollars, but he who has used to the best advantage his opportunities for doing good; who has been the most ready to relieve suffering; who has watched as tenderly by the cot of the penniless child as beside the luxurious couch of the influential millionaire; who has taken advantage of the trusting confidence of his patient and pointed him to the path of rectitude; who has administered to the souls as well as to the bodies of his patients, and has done it all from a higher motive than the mere gain of self.

As promised in our last issue, the JOURNAL will henceforth be issued twice a month. We have every reason to feel encouraged, and have not the least doubt that the venture will prove eminently successful, and that we will receive the hearty support of the profession in this section of the country. We will use our best endeavor to make the JOURNAL newsy, interesting and profitable, and earnestly solicit the assistance of our friends in accomplishing this. Items of professional news, reports of cases of interest, original scientific papers and condensed reports of society meetings will be gladly received. To our many friends who have sent letters expressive of their good wishes for the future prosperity of the JOURNAL, we extend our earnest thanks, and assure them, one and all, that we will strive faithfully to merit their good opinions and kind encouragement.

MEDICAL LEGISLATION.

We would remind the Committee on Legislation, appointed at the Raleigh meeting, that the General Assembly will soon be in session, and that if nothing is done in the matter of improving the laws for the protection of the public health within the next sixty days, things will have to remain as they are for another two years. The Committee is composed of Dr. A. W. Knox, of Raleigh; Dr. T. S. Burbank, of Wilmington; Dr. Hubert Haywood, of Raleigh; Dr. K. P. Battle, of Raleigh, and Dr. T. D. Haigh, of Fayetteville. There are three important matters in regard to which our State is not in line with the more advanced States: blindness from ophthalmia neonatorum; the regulation of the practice of mid-wives; and restriction on the sale of poisons.

In regard to the prevention of blindness, the State Society, in Conjoint Session with the State Board of Health, at the last meeting of these two bodies, passed the following resolutions:

Resolved, That it is the sense of this Conjoint Session of the State Board of Health and the State Medical Society that legislation tending to lessen blindness from this disease (ophthalmia neonatorum) similar to that already enacted in a number of the other States is desirable.

Resolved, That the Committee on Legislation of the Medical Society be requested to use their best endeavor, if, in their judgment, after the assembling of the Legislature in 1895 it be wise to agitate the subject, to secure the enactment of such a law.

The *personnel* of the Legislature is so completely changed that it will be impossible to forecast what would be the outcome of an attempt to secure the passage of such a bill, but we would ask each of our readers in the State to make a special effort to impress upon the members of both houses from his section the great importance of such a measure; that this disease is the cause of the blindness of more than one hundred persons in our State; that when a child is made totally blind it is almost of necessity a life-long burden upon the State; that the disease in question is manageable if taken in time and treated intelligently, but if left to itself or the tender mercies of the officious mid-wife, with her green tea poultices *et cetera*, is almost sure to destroy the sight of its victim; that the disease, in a large majority of cases, occurs in those in the lower walks of life who strive to avoid the expense of doctors and medicines, and who, if made blind, must be provided for at the public expense.

The registration of mid-wives is a thing the importance of which cannot be denied. It would be necessary for the proper execution of the law for the

prevention of blindness, if for no other reason; but it would be a step in the direction of saving innocent women and babes from the superstition and ignorance which are about the only qualifications of the women who compose this class at present. While it may not be possible to effect so radical a change immediately as would be desirable, these women should be required to exhibit some information on the subject of obstetrics, and should all be able to read and write. This, if nothing more.

The sale of pure, well-known poisons and of patent medicines containing them by druggists and grocers, should not be allowed except upon the prescription of a physician. No patent medicines should be permitted to be offered for sale unless there be printed upon the label of each bottle a true formula of the preparation, and any bottle found to depart from the formula should subject the manufacturer to a heavy penalty, and forever debar that preparation the right of sale within the State. Should a preparation contain any drug which would prove harmful, if taken indiscriminately, it should be sold only by druggists, and then on the prescription of a physician.

Reviews and Book Notices.

The Medical News Visiting List, for 1895.

This popular list, published by Lea Brothers & Co., Philadelphia, is well up to the standard of the lists for

former years. It contains valuable tables, such as drugs and their doses, rules for resuscitation of drowned persons, of incompatibles, the eruptive fevers, poisons and their antidotes,

therapeutic remedies and rules for the ligation of arteries. The body of the volume is divided into sections for calls, obstetric engagements, cash accounts, etc., and is provided with a pocket and pencil.

A Manual of Modern Surgery. General and Operative, by John Chalmers DaCosta, M.D., Demonstrator of Surgery Jefferson Medical College, Philadelphia. Cloth; Octavo; 809 pages. Price \$2.50. W. B. Saunders, Philadelphia, 1894.

This volume seems to be a happy medium between the exhaustive textbook, and the superficial compendium. The first chapter is devoted to bacteriology, and though necessarily incomplete, it will serve to make clear to the general reader the very important relation that this branch bears to surgery, and will stimulate his appetite for a closer study. The author says in his preface: "Obsolete and unessential methods have been excluded in favor of the living and the essential.

There has been no attempt to exploit fanciful theories nor to defend unprovable hypotheses, but rather the effort has been to present the subject in a form useful alike to the student and to the busy practitioner." The volume is illustrated by 188 cuts in the text, and 13 full-page plates in colors and tints, and is one of Saunderson's New Aid Series.

Annual of the Universal Medical Sciences. A Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by Charles E. Sajous, M.D., and Seventy Associate Editors. In five octavo volumes. The F. A. Davis Company, Philadelphia, 1894.

This is the seventh edition of this valuable work, and our readers are already familiar with its general scope. The general characteristics that marked the preceding editions are retained in

this. The editor has been ably assisted by eminent men of all countries, who have thoroughly gleaned the medical literature during the past year and collected all that is new and interesting. References are made by number and date, and each volume contains a list of all publications from which extracts are made, with the post-office address of each, so that any one desiring to read the entire article from which the extract was made will have no difficulty in securing the journal from its publishers. The work is invaluable to those who desire to study some special subject, and no one will go amiss in having it upon the shelf.

Obstetric Surgery. By Egbert H. Grandin, M.D., Obstetric Surgeon to the New York Maternity Hospital, etc.; and George W. Jarman, M.D., Obstetric Surgeon to the New York Maternity Hospital, etc., Eighty-five (85) Illustrations in the Text and Fifteen full-page Photographic Plates. Royal Octavo, 220 pages. Extra cloth, \$2.50, net. The F. A. Davis Company, Philadelphia.

We have, in the volume before us, a work that will prove of great usefulness to the general practitioner. The facts set forth in the volume are based on the rich experience of the authors as obstetric surgeons to the New York Maternity Hospital. All operative procedures in obstetrics are discussed and those which are preferable are thoroughly explained and illustrated by diagrams and photographic plates.

In the Introduction obstetric asepsis and antisepsis are discussed, and as an evidence of the author's faith in them we quote the last paragraph of this section, which says: "*Aseptic and elective* obstetrics rob labor of its terrors and the puerperal state of well-nigh its sole risk.

The authors have gone minutely into all the details of the technique of all

the operations bearing upon obstetrical practice, from the induction of abortion and premature labor to craniotomy and the Cæsarean section. Upon all points upon which it touches the volume is well in keeping with the best teaching of the day. The country physician who, while riding home after a tedious operation for strangulated hernia or appendicitis, is suddenly stopped and called in to find a case of placenta previa or shoulder presentation, and that the only vessel in which to prepare his antiseptic solutions is an old tin basin, may not be able to carry out all the details as laid down in this most excellent work, but he will have in his favor the pure country air, which saves him many a misfortune which would befall his city brother who might venture to follow his example. However, by studying this volume, he will know "how the thing should be done" whenever it is possible to do so, and we would advise him to procure the book and heed its teachings.

The Pocket Anatomist. By C. Henri Leonard, A.M., M.D., Professor of Gynecology Detroit College of Medicine. Leather, 300 pages, 193 illustrations, post-paid, \$1.00. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

The 18th edition of this popular

anatomy is now before us; it is printed upon thin paper and bound in flexible leather so as to be specially handy for the pocket. The illustrations are photo-engraved from the English edition of Gray's Anatomy, so are exact as to their details. It briefly describes each Artery, Vein, Nerve, Muscle and Bone, besides the several Special Organs of the body. It contains more illustrations than any of the other small anatomies.

The Columbia Desk Calendar.

For ten years the desk calendar issued by the Pope Manufacturing Company has held a unique place among business helpers. Each daily leaf during that time has taught its quiet lesson of the value of better roads and outdoor exercise, and especially the benefits of bicycling. The calendar for 1895, which is just issued, is even brighter than its predecessors in appearance, as clever artists have added dainty silhouette and sketch to the usual wise and witty contributions that have heretofore given this popular calendar its charm. It can be had for five 2-cent stamps from the Pope Manufacturing Company, Hartford, Conn., or from any Columbia bicycle agency.

Abstracts.

TRAUMATIC CATARACT IN CHILDREN.
—Dr. James Moore Ball (*Medical Herald*) gives 2 cases of traumatic cataract in children successfully treated by extraction of the lens. The first case was a boy, aged 9, struck in the eye by a needle, which pierced the cornea

near its centre and entered the lens. A portion of the lens substance protruded through the puncture, forming a rounded mass with pedicle. On account of the condition of the lens, much of which was not softened, he avoided the classical linear method and

made the extraction by passing a Græfe knife at the apparent corneoscleral junction and severing about two-fifths of the circumference of the cornea. The lens was extracted through a natural pupil and the eye dressed antiseptically, the dressing being kept moist with a solution of bichloride, 1-300. The vision in sixteen days equaled 18-20. The second case was a boy aged 11. The eye was wounded by a thorn. On examination the conjunctiva was congested, the pericorneal vessels dilated, and the anterior chamber nearly obliterated by the pressure of a swollen lens and great increase of intra-ocular tension. The eye had been painful for three days, though at the time of the accident and for several weeks there was no pain. Again the linear operation was avoided, as it was deemed that much of the lens could not be removed in that way, being unsoftened. The incision was the same as in the former case except for being one millimetre in advance on account of the bulging of the iris. The greater part of the lens was softened and followed the knife. While working out some of the cortical matter there was a sudden gush of vitreous, which was immediately cut off, only to be followed by more. The lid was gently but firmly closed and an antiseptic dressing applied. The next morning the corneal wound was found closed and the anterior chamber restored. The case progressed favorably, and at the end of fifteen days vision was 15-30. The successful issue of these two unfavorable cases leads the author to believe that the accepted treatment (linear extraction) is a mistake.

TREPHINING FOR ACUTE CEREBRAL MENINGITIS.—Dr. B. Merrill Rickerts,

in an address before the St. Louis Medical Society (*Medical Review*) said that this operation is based on the principle that an abnormal quantity or quality of fluid should be removed wherever found, no matter in what cavity or portion of the body it may be. Acting in accordance with this principle, the speaker recently trephined a child 18 months old, which had simple cerebral meningitis. The operator was not called, however, until the child had been comatose for eight days. At that time the child had not taken nourishment of any kind for eighteen hours, not being able to swallow anything whatever. It had not moved its arms or legs; had given no indication of sensibility; there was left facial paresis; the pupils were contracted. The right parietal region was trephined with a gouge, without an anesthetic. Five minutes after the arachnoid has been opened the facial paresis had disappeared. The left parietal region was immediately trephined as low down as possible in order to insure good drainage. Two ounces of clear straw-colored fluid escaped in the next fifteen minutes. The two operations were performed in fifteen minutes, and at the end of that time the child could move its arms and legs, cried aloud, could swallow water, and continued to take liquid food for the next 26 hours. After 28 hours dissolution took place. It is reasonable to suppose that this child would have recovered if the operation had been done as soon as pressure symptoms manifested themselves.

The question arises, how, and to what extent, can we drain the arachnoid cavity? It is understood that there is an arachnoid cavity, and that

this cavity is a continuous one. If this is true, it looks as though we could drain it by one trephine. This is impracticable, however, and better drainage is insured by trephining both parietal regions.

If there is fluid in the ventricles, it may be drained by tapping them, as the toleration of the brain substance is wonderful. This drainage has been accomplished by Dr. Moyer, of Chicago, by inserting a canula fitted with a little door or cover which could be opened or closed *ad libitum*. In another instance the ventricles were drained through a tube into the cellular structure of the scalp, the fluid being removed by re-absorption. The idea is certainly unique, and perhaps it may be practicable to do it.

BICHROMATE OF POTASSIUM AS A REMEDY IN GASTRIC AFFECTIONS. — We offer the following synopsis of a paper on the above subject, which was read at the International Medical Congress by Prof. T. R. Frazier: Notwithstanding the assertion made in 1883, by so high authority as Vulpian, of the value of bichromate of potassium in the treatment of several forms of gastric disturbance, this substance has not yet gained a position among the many substances that are used in the treatment of these affections. Having, in 1884, treated with gratifying success a case of persistent gastric disorder by the administration of small doses of bichromate of potassium, I have since that time administered it in a large number of cases, and the results have been so favorable that I feel myself justified in now stating my opinion of the therapeutic value of the

substance. The cases have been recorded in two groups, the first group comprehending 18 cases of various forms of dyspepsia unassociated with evidence of gastric ulcer, and the second group, 10 cases in which distinctive symptoms of ulcer had been present at some previous time. The doses administered in the above cases have varied from $\frac{1}{2}$ grain to 1.6 grain, twice daily, and in most instances the smaller dose was found to be sufficient. The dose should be given during fasting and on as empty a stomach as possible. The administration was effected in the form of pills or an aqueous solution which may be flavored with tolu or orange. An examination of these cases shows that bichromate of potassium is capable of relieving, and often in a short time of removing, the entire group of symptoms—if we except constipation and anemia—encountered in dyspepsia, and especially pain, nausea, vomiting and gastric tenderness. In a few cases of acute gastrice ulceration, with hematemesis, in which I have given bichromate of potassium, the results were not favorable, as it did not succeed in checking the bleeding. Bichromate of potassium possesses a strong anti-putrefactive power, which is exhibited in albuminous, saccharine and phosphatic urines, even with a 0.01 solution. This action probably constitutes one of the causes of its anti-dyspeptic therapeutical value, but there are undoubtedly other causes, such as direct or indirect analgesic action, and probably a selective action on the nutrition or function of certain histological structures, which I am now engaged in endeavoring to determine.—*Lancet*.

THE PUBLIC SERVICE.

THE ARMY.

Three weeks ending December 26th, 1894:

Stark—Leave of absence for one month is granted 1st Lieut. A. N. Stark, Assistant Surgeon, to take effect on his return to Fort Sam Houston, Texas.

Glennan—Capt. James D. Glennan, Assistant Surgeon, is relieved from duty at Fort Sill, Oklahoma Territory, and ordered to Fort Snelling, Minn.

Morris—Capt. Edward R. Morris, Assistant Surgeon, on the arrival of Capt. Paul Glendenin, Assistant Surgeon, at Fort Warren, Mass., will be relieved from duty at that post, and will report for duty at Fort Spokane, Washington.

Swift—The leave of absence granted Capt. Eugene L. Swift, Assistant Surgeon, is further extended two months.

Flagg—1st Lieut. Charles E. B. Flagg, Assistant Surgeon, now on duty at Angel Island, California, will report in person at Fort Townsend, Washington, for temporary duty at that post.

Frick—Capt. Euclid B. Frick, Assistant Surgeon, is granted leave of absence for four (4) months.

Brewer—Lieut. Madison M. Brewer, Assistant Surgeon, upon the expiration of his present leave of absence, will be relieved from duty at Fort Riley, Kansas, and report for duty at Fort Keogh, Montana.

Porter—Leave of absence for four months on surgeon's certificate of disability, with permission to leave the Department of Dakota, is granted 1st

Lieut. Alexander S. Porter, Assistant Surgeon.

Promotions.

To be Assistant Surgeons, with the rank of Captain, after five years service in conformity with Act of June 23, 1874:

1st Lieut. Charles Willcox, Asst. Surgeon, Oct. 23, 1894.

1st Lieut. Harlan E. McVay, Asst. Surgeon, Oct. 29, 1894.

1st Lieut. Euclid B. Frick, Asst. Surgeon, Oct. 29, 1894.

THE NAVY.

Three weeks ending December 29th, 1894:

Pigott—P. A. Surgeon M. R. Pigott, from Chelsea Hospital and to Mare Island Hospital.

Evans—P. A. Surgeon S. G. Evans, from Mare Island Hospital and to the U. S. S. "Pinta."

MARINE HOSPITAL SERVICE.

Fifteen days ending December 15th, 1894:

Stoner—Surgeon G. W. Stoner, granted leave of absence for twenty days. December 10, 1894.

Rosenau—Passed Asst. Surgeon M. J. Rosenau, to report at Bureau for special temporary duty, December 10, 1894.

We understand that the enterprising house of Parke, Davis & Co. have started the preparation of antitoxin serum, but it will necessarily be some time before it can be offered for sale.

In writing to advertisers, we will be glad if you will mention this JOURNAL.

Miscellaneous Items.

Read the advertisements, Doctor, and when you write to the advertisers mention the fact that you saw the ad in this JOURNAL.

Tincture of chloride of iron, given in Seltzer Water, is said to make a pleasant drink and obviate the tendency to constipation.

We regret to learn of the death of little Mary, the $9\frac{1}{2}$ year old daughter of Dr. J. W. Long, of Richmond. She died on October 2d, 1894, of diphtheria, after an illness of only five days.

A midwife in the western part of North Carolina is said to have confiscated a new-born babe because her fee was not paid. She was frightened into returning it. Register midwives and

require that they have some intelligence and education.

The general practitioners are really our best diagnosticians and clinicians. I would say that the specialist should not only be a general practitioner, but he should first have been a country practitioner; second, a city practitioner; third, a specialist. Specialists should grow, not spring up like mushrooms.—DR. JOSEPH PRICE, before the Philadelphia Obstetrical Society.—*Ex.*

The following is the health report of Wilmington for December, 1894:

	Whites.	Col.	Total.
Population.....	9,000	13,000	22,000
Deaths.....	9	22	31
Death-rate represented.	12.00	20.3	16.9

Good results in the treatment of diphtheria with antitoxin serum continue to be obtained.

Reading Notices.

MORLEY, MO., February 2, 1894.

*Dios Chemical Co.:—Gentlemen:—*In reply to yours of the 21st inst., will say that I gave the sample of Sennine a test as an antiseptic in a case of suppurative ulcers, and also in a case of chronic diarrhœa, and am much pleased with its actions. With bad fetor of breath in long-standing cases of intestinal troubles, I think it has no equal.

C. C. HARRIS, M.D.

NERVOUS HEADACHE.—R. Williams, Surgeon, 69 Vauxhall Road, Liverpool, Eng., says: I obtained very good results from the use of Celerina in cases of nervous headache arising from general debility. The patients made rapid progress by taking Celerina in teaspoonful doses, thrice daily. Ordinary

treatment had failed to give much relief or satisfaction previous to taking Celerina. In conclusion, I consider the preparation will not in any way disappoint any physician in its therapeutic effects, but will be found a reliable remedy for the purposes indicated.

Fluid Extract of Kola is a valuable tonic stimulant. Unfortunately, however, it is acrid and bitter in taste, and taken in this form is unpalatable. Messrs. Frederick Stearns & Co., of Detroit, Mich., have devised a compound which they call "Stearns' Kola Cordial." Physicians desiring to test this new product will be sent samples for clinical test on request.

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Original Communications.

SKIN GRAFTING FOR KELOID.*

BY GEORGE H. MALLETT, M.D., Instructor in Diseases of Women in New York Post-Graduate School and Hospital; Acting Assistant Gynæcologist to New York Cancer Hospital and St. Bartholomew Clinic; Assistant Gynæcologist to Woman's Hospital Out-Patient Department, etc.

To find out if a disease is difficult or easy of cure, one has but to glance at the number of remedies offered for its relief. The object of this communication is to add another to the already long list of procedures devised for the cure of keloid.

Before proceeding to the cure it may be well to glance over the nature of the disease, with which you are doubtless all familiar.

Keloid is characterized by projections of new growth of connective tissue, composed of closely packed fibres that are generally arranged parallel to the surface of the tumor. They vary in size, color and consis-

tency. The etiology is unknown. According to some authorities, it may develop spontaneously, or from irritation, or from a simple scar following boils, carbuncles or pustules, acne or lupus, but most frequently after wounds or operations. Sutton denies that Keloid occurs spontaneously, but says that clinical observation has shown that it often arises in scars left by such slight injuries that they have been forgotten.

They begin as a small tubercle or nodule well embedded, but slightly elevated above the skin. They slowly increase and vary in shape. They commonly are oval masses sending projections into the surrounding skin, or they may be elongated, cylindrical,

*Read before the Alumni Association of Charity Hospital, November 7, 1894.

or as disks or plates, or cord-like elevations.

The color is usually white or pink or reddish and shiny; the surface is smooth to the touch; the tumor is firm but elastic, the centre portion being denser and harder than the circumference. The most frequent sites are the sternum, sides of the chest, mammæ, back and neck. The lesion is sensitive to pressure and pain may also be spontaneous and of a pricking and burning character. Sometimes itching is experienced. These symptoms are seldom constant, but occasionally may be so steady as to incapacitate the patient.

Keloid never ulcerates and shows no tendency to undergo change except in those very rare cases in which involution occurs.

The diagnosis is easy. It can be distinguished from healthy cicatricial tissue by its color, pain on pressure and presence of spontaneous pain and by the presence of blood-vessels and sudoriferous glands. In the treatment of this condition many drugs have been used internally and locally, but have been of no avail. The galvanic current, scarification, sol. of chloride of methyl (freezing mixture) have been used and abandoned.

Boaz, of Paris, and Hardaway and Morrison, in this country, have used electrolysis with some success. Duhring recommends the application of caustic potassium, and Piffard has reduced the growth by incision and the application of acetic acid. Simple excision is useless. The growths have been removed many times and always recur.

The procedure to which I wish to call your attention is excision with

skin grafting by Thiersch's method. In looking over the literature at hand, I find no record of the operation by this method for the relief of this condition. In the *Medical Record* of August 11, 1894, it is noted that Broca excised from the back of the hand and thumb an extensive keloid following a burn, and a flap from the abdomen was grafted upon the denuded surface and its pedicle severed on the tenth day with a perfect result, Thiersch's method seems to me much simpler and more generally applicable than the above.

In advocating a mode of treatment I realize that it is customary to relate a series of cases cured by the procedure advised. In this instance I shall depart from that time-honored custom, for the result in the case that I shall lay before you the most enthusiastic could hardly call brilliant.

The patient, a young woman, had a cœliotomy and Alexander's operation done five years ago. The wound, she says, headed up very well, and she thinks without suppuration. About three months after the operation she began to experience burning and pricking sensations in the cicatrix; then the cicatricial tissue began to grow and became very sensitive. She was then treated with medicines internally and locally, but with no benefit.

One year ago she came under my observation. At that time the growth covered the line of cicatrix from symphysis to umbilicus and over that of the Alexander's on the left—the right seemed normal. At that time it was a little over half an inch in width and raised about a quarter of an inch above the surrounding tissue. It was red, shiny and extremely sensitive. The

whole cicatrix was then excised and the edges of tissue brought together with strips of adhesive plaster.

The patient was lost sight of for six months. When next seen the growth was found to have increased to about an inch in width along the whole line of incision and to have reached its former height.

She then tried electricity in its various forms with no result other than to increase the pain and tenderness, to say nothing of the severe pain caused by the applications. This she abandoned after a trial of three months.

Six weeks ago I excised the growth, taking care to include the projections into the skin, and then covered the

denuded surface with large grafts removed from the thigh after the manner of Thiersch, with the details of which you are doubtless all familiar.

The patient proved to be unmanageable, and, either from interference with the bandage or faulty technique in the operation, comparatively few of the grafts have taken, but those that did have assumed the appearance of normal skin, and, to my mind, prove the possibility and feasibility of the operation, and encourage me to believe that the next one that I do will be entirely successful.

The hope that others will try this method is my apology for presenting these fragmentary notes.

222 North 59th St.

HOSPITAL REPORTS—SOME CASES OF NEUROSES.

• [Reported by Richard H. Davis, Senior House Surgeon.]

Service of J. Allison Hodges, M.D., University College of Medicine,
Richmond, Va.

CASE 1.—*Persistent Melancholia and Nervous Depression Due to Laceration of the Peritoneum, Cured by Tait's Operation and the Excision of a Neuroma in the Cicatricial Tissue.*—Mrs. C., age 30, the mother of three children, date of last confinement, two years previous, was suffering, when admitted, from great nervous depression and prostration; was morose, irritable and complained of weight in the abdomen and vague spinal and lumbar pains. Upon examination, no sufficient cerebral or spinal lesion was discoverable, and not having

improved under treatment directed to this end, a vaginal examination was made. No uterine lesion was present, but an almost complete laceration of the perineum was found. Its lateral edges were composed of unusually thick and resilient cicatricial tissue, and there was an excessively sensitive protuberance at the lower junction of the angle of laceration. This laceration and resulting neuroma being sufficient to explain her symptoms, she was operated upon, according to Tait's modified method, the neuroma being

carefully excised at the same time. The result was all that could be desired, for in a few days her melancholia and general nervous irritability began to disappear, and when removed, ten days later, from the hospital, she evinced none of her former symptoms.

CASE 2.—*Pathological Gastro-neurosis: Symptoms of Gastric Catarrh, Improved by Treatment of Existing Endometritis.*—Mrs. J., age 25, married four years, sterile, suffering from neurasthenia, complained of pain after eating, heartburn, eructation of gases and frequent vomiting after meals. A remote family history of tubercular disease was given. No disease of heart or lungs could be elicited upon examination. The gastric secretions were examined and showed a healthy condition of the mucous membrane. Lavage of the stomach was instituted, and the patient was given constitutional treatment, but no improvement followed.

It being ascertained that there was a very slight leucorrhœal discharge present, vaginal injections were administered copiously twice a day. Subsequently a vaginal examination disclosed the fact that there was a slight stenosis, and that the uterus was ante flexed and enlarged, giving evidence also of diseased uterine mucosa. The dilator and sharp curette were then employed for the relief of the existing endometritis, under antiseptic precautions, and the result was comparatively satisfactory, the dyspeptic symptoms improving at once. This amelioration of the symptoms was more marked, as the result of this surgical interference, than under all former general medication to which the patient had been subjected, but since leaving the hospital, it is learned that

there has been some slight return of the "vomiting after meals," the other gastric symptoms having been entirely removed. As this is evidently a reflex-neurosis, and as this was a case of long-standing endometritis, further use of the curette is imperatively demanded in order to effect a permanent cure.

CASE 3.—*Menstrual Hystero-neurosis of the Breast; Retroversion, Endometritis, Menorrhagia; Curettement; Cure.*—Mrs. E., age 38, married at 30, formerly of robust constitution, but health began to fail after the birth of her only child three years ago. Nervous symptoms developed, and great nervous and physical prostration ensued. She suffered also intensely with mammary pains, especially about the menstrual periods, and often with profuse menorrhagia. It was this latter condition which suggested operative interference, since the "drain" upon the system seemed to be so urgent. Accordingly, upon examination, there was found not only metritis and endometritis, but also retroversion of the uterus. Curettement and the scraping off of several excrescences from the uterine wall, promptly checked the hemorrhage and leucorrhœal discharge. The uterus was also replaced and held in position afterwards by antiseptic tampons. It was noticed by the patient later that the mammary pains also disappeared at the time of the operation, and she has not suffered since with any recurrence of them. While this secondary result was not the object of the primary operation, it was none the less desirable.

CASE 4.—*Pathological Genito-Reflex Neurosis; Spinal Pains Due to Laceration of Cervix; Disappearance after Repair of Laceration.*—Mrs. C., age 35,

was referred to hospital for treatment of intense spinal pain. The localized pain in the back had existed continuously since the birth of her last child four years previously. Every kind of treatment, local and general, had been invoked, but with unsatisfactory results. After her admittance central galvanization and utero-abdominal faradization were used with but temporary improvement. It was then decided to repair the cervical laceration which was present, in the hope of giving relief. There was an improvement in the pains almost immediately, and by the time union had taken place they had ceased entirely. In this case there was no decensus uteri or pressure upon the spinal column by an enlarged fundus, which is usually the exciting cause of this class of neuroses.

CASE 5.—Traumatic Epilepsy; Operation; Improvement.—A. E., male, age 20, received a fall from a nurse's arms when one year old, striking left side of head upon a block of wood. At the time of accident he had a convulsion and then an interval of six months before a return of the seizures. Within the last two years the epileptic attacks have been remarkably severe, the patient always losing consciousness. He has had as many as nineteen in one day and night.

Condition at the time of Operation.—There was an elevation on the left parietal bone just above the upper temporal ridge and behind the coronal suture. Pressure on the cicatrix caused pain, and a sullen countenance and dullness of the mental faculties was very apparent. His memory was not retentive, and there was a tendency manifested in some of the attacks to-

wards maniacal frenzy. He had a distinct aura, pain being felt in the region of his stomach before most of the convulsions.

Operation.—Semi-circular incision of scalp, pericranium being detached at the same time. The cranial vault was then trephined over the site of the injury with an inch and a half conical-shaped trephine under absolutely aseptic conditions. The dura mater was found firmly adherent to inner table of calvarium; it was detached and was discovered to be thickened, vascular and highly congested, a sufficient cause, presumably, for the existing lesion. The edges of the circular incision were then made perfectly smooth, the wound closed and dressed antiseptically, no covering being used except the pericranial flap.

Result.—The wound united perfectly by the sixth day, when sutures and dressings were removed. The patient had no epileptic seizure till he took the train for home, when he suffered two slight attacks. Since that time, now a little more than one month, there has been no recurrence of the convulsions. His mental condition has improved considerably, but it is yet too early to predict the ultimate result.

CASE 6.—Traumatic Epilepsy; Operation; Improvement.—C. B., age 59, good family history. First epileptic convulsion occurred in December, 1864. In May of that year he was struck by a glancing minnie ball, while in battle, on the left side of the head and fell unconscious. Since the first seizure he has averaged five or six daily, most of them occurring at night. His loss of memory is his most noticeable symptom, his health otherwise being good.

He has no aura and the majority of the attacks are of the petit mal type.

Condition at the time of Operation.—

There was a linear depression on the left parietal bone, just above and parallel to the horizontal line of the squamous suture. His health was apparently robust, but there were evidences of incipient imbecility. He complained of failing memory, and desired to be relieved by surgical means, if possible, all other forms of medication having failed.

Operation.—Performed as in case above. No fracture of inner table of skull found, but the osseous tissue of both tables was very much thickened; dura mater was thickened, but not adherent. All of the hyperplastic bone tissue was removed, and since there was no suspicion of implication of the cortical area of the brain, the

dura was not incised, the thickened condition of the surrounding plate of bone being thought sufficient to produce the lesion.

Result.—Wound united throughout on sixth day without the formation of pus. One mild convulsion on night of operation, two others three days later, and then an intermission up to present time, nearly six weeks. On tenth day after operation, three days after reaching home, there was noticed some aphasia and slight paralysis of left leg, but these symptoms are now passing away. His memory has improved very much; he says that occurrences following the battle of Chancellorsville, where he was wounded, which were forgotten by him, are now vivid pictures in his mind. In this case, likewise, it is yet too early to predict with certainty the result of this operation.

Selected Papers.

A CLINICAL STUDY OF EMPYEMA IN CHILDHOOD.*

BY W. E. HUGHES, M.D., Ph.D., Philadelphia.

Empyema was formerly considered rather as an accident occurring in the course of sero-fibrinous pleurisy brought about by poorly-conducted attempts at exploration or operative interference, or if found without any previous violence, as caused, on the one hand, by some inherent tendency in the system of its victims towards a conversion into pus of such serous exudations, or on the other, by an ac-

quired dyscrasia, which again predisposed to pus-formation. As its origin was shrouded in mystery, so was its prognosis uncertain and its treatment along lines which were necessarily indefinite. Now that careful bacteriological investigation has shown its true nature, we are able to discuss it more definitely and to recognize it as entirely separate and distinct from any other variety of pleurisy. While the empyema of childhood is not at all to be

*University Medical Magazine.

thought of as constituting a separate variety of the disease, yet it presents here certain peculiarities which make a special study well worth while. Disease processes are much less complex at an early age than in later life, and the actual causes of empyema existing then are much more easily and definitely determined. My somewhat elementary treatment of the subject, and a possibly prolix statement of facts already well established, may be pardoned when it is remembered how little the true nature of empyema is appreciated by the profession at large. Two points cannot be too strongly accentuated here, that empyema is much more common in childhood than is often supposed, and that it is a distinct entity, is primary, and has no direct relationship with sero-fibrinous pleurisy. Having these facts clearly in mind, it becomes difficult to escape a correct diagnosis, and the diagnosis is made at a time when it will be of the most service. But, having recognized the condition, other considerations are of essential moment in prognosis and become of paramount importance in treatment. Bacteriological study has shown that in the pus of all pyemas micro-organisms are present: these constituting the cause, at the same time serving to divide the disease into distinct varieties, the recognition of which, while not always possible, is yet of great importance. The micro-organisms concerned may be divided into three classes: pneumococci, tubercle bacilli and pus organisms, and these produce empyemas as distinct in their nature and symptoms as in their etiology. The introduction of these micro-organisms into the pleural cavity takes place undoubtedly

in the vast majority of instances by way of the lungs, but there is a small, yet still appreciable, number of cases where the lymphatics, or even the blood-vessels, are the pathway and the lungs are uninvolved. Even where introduction takes place immediately from the lungs, the initial lesion in them may be so trifling as to be unrecognizable, and thus unavailable for diagnostic purposes. The condition of the pleura would seem to be of much importance. It is certainly an open question whether a healthy pleura would not destroy any ordinary irruption of germs, and whether it is not, in most instances, at least, necessary to have a previously existing abnormal state of this membrane before we can have a soil suited to the development of the specific germs of empyema. In those scattered cases where a serous effusion has spontaneously become purulent, either the germs were introduced subsequently to the pleurisy and thrown upon a soil previously fitted for them by disease, or they, in the beginning, had not sufficient virulence to produce pus, but merely a serous exudate. The first of these two hypotheses certainly seems the more tenable.

In the greater number of cases in children the pneumococcus is the causative germ. Almost of necessity introduced by way of the lungs into the pleural cavity, it is still not necessary that we should have a preceding pneumonia, though those cases which have been carefully watched from the beginning will generally be found to have thus eventuated, and in the others the history will, as a rule, point quite strongly to an initial pneumonia. So frequent is this that it is of diagnostic

importance, and will alone serve to point strongly 'owards a metapneumonic empyema, though microscopic examination is always necessary to an absolute determination of the variety. While the entrance of the pneumococci into the pleural cavity is probably coincident with the height of the pneumonia, yet the symptoms of the empyema rarely develop at this time, the pneumonia will run its course, there will be an interval of some days, or sometimes a week or more, during which the condition, if not wholly satisfactory, is at least such as to make us believe that the trouble has passed before the empyema begins to manifest itself. The amount of lung involved has little to do with the incidence of the empyema, often the physical signs and the trifling nature of the symptoms are such as to suggest rather than a lobar a slight broncho-pneumonia. Metapneumonic empyema being the commonest form in childhood, accounts for the comparatively favorable prognosis at this age, and determines the somewhat peculiar course, as will be pointed out further on. In addition to the presence of the pneumococcus there must be another element which determines the incidence of empyema, for it is well known that there may be pneumococci present when the effusion is not purulent. What this element is, is doubtful, but it must be some condition antedating the entrance of the pneumococcus, for this form of empyema is invariably acute and primary, and never follows a sero-fibrinous pleurisy.

Tubercle bacilli may, unaided, produce empyema; at least in a certain number of cases these organisms, and these alone, have been found in the

pus. The commonest form of tuberculous pleurisy in childhood is, of course, that in which the exudate is sero-fibrinous. It is interesting to note here that, while in the serous exudate it may be impossible to find the bacilli, and whenever they are present their numbers are few, in empyema they exist almost constantly and usually in considerable quantities, rendering the differentiating of this variety comparatively easy. This form of empyema is apparently rare in childhood, yet clinical facts lead me to believe that more careful investigation will show that it is more common than is now apparent. When it does occur it seems to be a sequence of tuberculosis of the bronchial lymph-glands, rather than of the lung, and is not likely to lead to a secondary pulmonary involvement, but to a generalized miliary tuberculosis. It is necessary to bear this fact in mind, as this form of empyema is very likely to be localized.

In the last variety, that produced by any one, or more usually, several of the pus organisms, most prominent among which are streptococci and staphylococci, we have to deal with a form whose etiology is less clear than that of either of the others, and whose symptoms and prognosis are less definite. It is possible that the organisms may, like the pneumococci, gain access to the pleura by way of the lungs, but this is here only exceptionally the case, and the lymphatics are the common path. This variety is the one which usually follows the infectious fevers, resulting either from the germ, which is their cause, or from any of the numerous swarm which follows in their wake. Not at all infrequently a nidus for the germ is formed by a

serous effusion, so that in this form we find best exemplified the changing of a serous into a purulent exudate. Of the predisposing causes of this variety, scarlet fever seems to be the most frequent, though it may follow any other of the fevers, or, in fact, any lesion which will admit pus-producing organisms.

Finally, while I have spoken of clearly-marked varieties, yet it must be recognized that in most cases we have to do, to a certain extent, with a mixed infection where the micro-organism present in greatest numbers determines the type. It is to be doubted that even the most typical examples of metapneumonic and tuberculous empyemas are really due wholly to their respective specific germs. There is, probably, in all of them a rôle of a certain importance played by the pus organisms. However, though these organisms may play a part, it seems but a secondary one; where the pneumococci or tubercle bacilli are prominently present they determine the type of their respective varieties and have most to do with their course and termination. But whether or not we concede the existence of specific varieties, the important fact still remains that an empyema is invariably due to micro-organisms; that it is a disease in itself, and is primarily empyema, or has, at least, the potentiality of becoming an empyema.

Symptoms and Diagnosis.—Clinically, two well characterized divisions may be made, and the line of demarcation between them is more sharply drawn in childhood, owing to careless inattention to symptoms which would attract attention to their ailment. It is

this very fact that a serious disease in childhood so often lacks expression, that should suggest the possibility of the occurrence of empyema, when conditions are favorable and symptoms indefinite, and keep us on our guard against mistaking it for some less serious disorder. These divisions are, first, that in which the disease is pronounced from the beginning, and where attention is attracted immediately to the chest by prominent symptoms; and, second, that in which the onset has not been noticed and the progress of the disease has been marked only by a general deterioration, on a superficial examination no symptoms of any respiratory trouble presenting themselves. The difference between the two clinical forms is an artificial one and not real; it depends partly on the etiological variety of the disease, and partly, as was said, on lack of observation or of expression of symptoms, thus, in those cases which are least urgent, leading to a minimizing of the gravity of the condition.

For diagnostic purposes this division is of a certain amount of importance, for when the onset has been insidious, pneumonia could with certainty be excluded, and we should have to deal only with a question of the nature of the fluid. Considering empyema of both types, we have first to differentiate between pneumonia and pleural effusion, and then, when the fact of the existence of an effusion is established, the determination of its nature.

In the first form, which may be called acute, in contradistinction with the second or latent, the attack will very likely have been ushered in by the symptoms of pneumonia, for it is the metapneumonic empyema that is most

frequently sharply marked and acute. It is for this very reason that a mistake is likely to be made here in diagnosis. Pneumonia has been clearly recognized, and when the child's condition fails to improve satisfactorily after a proper lapse of time, the tendency is towards regarding the case as one of retarded resolution in pneumonia rather than of empyema. The close similarity between the physical signs makes this mistake the easier. A point of distinct value in diagnosis here is this: when empyema has supervened upon a pneumonia it will generally be found to have commenced after the case has advanced some steps towards recovery, and there will have been then a period of amelioration of symptoms with a subsequent increase in gravity. If, on the other hand, there has happened not an empyema, but simply delayed resolution, or even abscess of the lung, there will have been no such temporary improvement. If the empyema has supervened during the acuteness of an attack of pneumonia the general symptoms will be of little use and sole reliance will have to be placed upon physical signs. Even when an effusion has come on during the course of, or subsequent to a pneumonia, it is not necessarily purulent, and the diagnosis has still to be made between empyema and sero-fibrinous pleurisy. When there has been no antecedent pneumonia, and this acute form of empyema has been primary, a variety which is likely to be not metapneumonic, but that due to pus organisms, the symptoms are so like those of pneumonia, as to make a diagnosis based wholly upon them difficult or altogether impossible.

These symptoms—and this applies

equally to pleurisy and empyema, for whether the effusion be serous or purulent, the symptoms in the beginning of an acute case are practically identical and indistinguishable from each other—are sharp pain, fever, distressing constant cough, dyspnœa, manifested by rapidity of respiration and by play of the *alæ nasi*, and such general disturbance as would be due to the increase of temperature. The fever in such a case is almost uniformly high, with no more fluctuations than would be the case in pneumonia. It is only much later that distinct remissions may occur, and even then they are the exception rather than the rule. When they do occur they would point strongly towards empyema rather than pneumonia or serous effusion. Profuse sweating is only uncommonly present and is of little importance. As between pleural effusion and pneumonia—for, as has just been said, whether the effusion be serous or purulent, the symptoms in a marked and acute case are the same—the only symptoms which have seemed to me to have any diagnostic importance are dyspnœa and pain. In empyema the dyspnœa has often seemed to be more sharply accentuated than in pneumonia, the respirations are no more rapid, but there is a more noticeable play of the *alæ nasi*, a more evident sense of discomfort. Pain, too, is greater, and this pain is to be gauged, not by the expression of the child, but by a hyperæsthetic condition of the affected side of the chest. It is probable that this hyperæsthesia is accountable for the more pronounced dyspnœa. But these symptoms are merely suggestive and not of any convincing importance, they serve only to accentuate the results of

physical examination. When the empyema is latent, a condition which finds its best type in the tuberculous variety, though it may exist in either of the other two, symptoms pointing towards disease of the respiratory apparatus may be few and indistinct, even when they are carefully and intelligently sought for. The superabundant vitality of a child, with the enormous activity of its reparative processes, leads it to bear, with surprising equanimity, the most deadly inroads of disease, if these be but made slowly, and this form of empyema exemplifies this most fully. I have seen a child playing about and to all appearances not seriously ill, with a pleural cavity full to the apex with pus. While the heart is not too much embarrassed there will be but little dyspnœa, and strangely the pus seems to have little effect upon the system. There is always some dyspnœa, but this is shown only by the nose. Fever may be entirely absent, or present in such slight degree as to attract no attention. In the earliest childhood, if there be fever, it is likely to be of a continuous type. It is in older children that distinct remissions show themselves and hectic begins to become evident. When such remittent temperatures are encountered, they are, of course, of extreme importance diagnostically. From the nature of the symptoms and the course of the disease there can be no pneumonia, and where it is a question solely of the nature of a pleural effusion, a hectic temperature will point almost unfailingly to empyema. Sweating is a symptom which is frequently present, and, though it is not usually profuse, yet it is probably the most important of all as indicating very strongly an

empyema. Seeing, then, that in the latent form the symptoms are so poorly marked, and in the acute form so closely similar to those of pneumonia, it is evident that our only valuable diagnostic guide is that furnished by physical signs, but even here we are often at fault, since the chest-walls in a child are so thin and elastic that the physical signs of an effusion may exactly simulate those of consolidation.

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To be continued.

PREPARATION OF DIPHTHERIA ANTITOXIN.—Aronson (*Berlin klinische Wochenschrift*, Nos. 18 and 19, 1894) finds that the antitoxic serum can be manufactured by immunizing calves, goats, sheep, horses and dogs. He begins the immunization by injecting the animals with bouillon cultures of the diphtheria bacillus which have been exposed for one hour to the temperature of 70° C. After this, cultures exposed to 60° C. are used, then cultures to which trikresol has been added, the bacteria killed and the cultures preserved. He found that the virulence of the cultures could be greatly increased by the application of oxygen to the cultures.

It seems difficult to immunize large numbers of animals, as they may be lost through too active treatment, and sometimes die without distinct pathological lesions, under which circumstances the greater the number under treatment, the greater the number lost.

To estimate the exact value of the serum of such prepared animals he uses the method of Behring and Ehrlich, and mixes with the toxin the smallest amount of the antitoxic serum required for its neutralization.—*Univ. Med. Mag.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Continued and more extended reports from physicians who have had an opportunity of treating diphtheria with the serum from immunized animals, go to confirm the claim that the death-rate is very greatly reduced by this treatment from that under any of the former methods. Reports are being published in the various journals, giving the results as obtained by observers in the United States as well as in foreign countries, and these all exhibit very gratifying results. It will not, of course, be wise to permit enthusiasm run riot and lead us to overlook certain factors which tend to produce this lowered death-rate and which are not dependent on the action of the serum. The reports from which comparison can be made with former results are from series of cases treated in hospitals, and while formerly many mild cases were treated in private, now these are immediately sent to the hospitals where they may receive the antitoxin treatment, private practitioners not being allowed to obtain the remedy. Thus the proportion of mild cases in the later series is greater than in the earlier series and naturally tends to reduce the mortality. On the other hand, we have to remember that in the earlier series there were probably many cases that were not true diphtheria, while in the later all cases have been proven to be diphtheria by the detection of the Klebs-Loeffler bacillus in the cultures from the throat.

The *Boston Medical and Surgical Journal* has collected a brief *resumé* of the statistics published during the

year upon the use of the remedy, which we give below :

"Katz has reported from the Friedreich's Hospital, Berlin, 128 cases, with a mortality of 13.2 per cent. For the three years, 1890 to 1893 inclusive, there were treated at the same hospital 1,081 cases, with a mortality of 20 per cent. ; Ehrlich, Kassel and Wasserman 67 cases, with tracheotomy, mortality 44.9 per cent., and 153 cases without tracheotomy, mortality 23.6 per cent. ; Aronson 192 cases, mortality 13 per cent. ; Raux 448 cases, mortality 24.33 per cent. ; Weilger 63 cases, mortality 28 per cent. In the *British Medical Journal* there have been reported 39 cases, treated by various practitioners, mortality 7.6 per cent. Bokai, of Budapest reports 35 cases, mortality 14.33 per cent., the average mortality for the last three years being 53.8 per cent. Börger has lately reported from Griefswald 30 cases, mortality 7 per cent. Kuntz reports 25 cases from Oschersleben, mortality 12 per cent.

"In this country, Welsch has reported 4 cases treated at the Municipal Hospital, Philadelphia, with 1 death, mortality 25 per cent. ; White, of New York, 20 cases, mortality 25 per cent. ; Williams, of Boston, 6 cases, mortality 17 per cent. ; Körte, from the Hospital in Urban, reports 121 cases, mortality 33 per cent. ; 106 cases were treated without antitoxin during the same period, mortality 45 per cent. ; 37 mild or moderately severe cases, when the treatment was begun before the third day, gave a mortality of 3.3 per cent."

All these 1,369 cases show an average mortality of about 25 per cent., being a collection from hospital and private practice in Europe and America under the most varied conditions. A report of 231 cases occurring at the Trousseau Hospital, Paris, during October and November, with a mortality of 14.71 per cent., has just been published. Behring believes that a specific

treatment for diphtheria and tetanus has been found, and also has hopes that tuberculosis and pneumonia may be added to the list.

HAVE YOU PAID YOUR SOCIETY DUES?

The Constitution of the State Medical Society provides that any member who is delinquent in his annual assessment two successive years, and fails to pay after due notice from the Treasurer, shall not receive the Transactions of the Society until he has so paid. Under this provision we are sorry to see that there are quite a number who will fail to receive the Transactions for the 1894 meeting. Many of these, we are certain, have allowed themselves to get into this class simply through the proneness of physicians to *put off*. Some have been members of the Society for nearly a quarter of a century, and we are sure are deeply interested in its welfare.

This is a righteous provision, for there are expenses connected with the Society which have to be met by assessment on the members, and when one fails to respond, he is simply transferring his obligation to another; and it is a wise one, for a member is thus reminded that he is nearing that point where the Constitution provides that his name shall be dropped from the roll, viz: four years of non-payment. We hope, then, that those members failing to receive their copies of the Transactions, will immediately correspond with the Treasurer, Dr. M. P. Perry, Macon, N. C., and make their accounts straight. When they do this the Treasurer will notify the Secretary, and the transactions will be sent.

A VERY UNWISE BILL.

Just as we are about to close the Editorial Department, the press despatches bring the information that the following bill was introduced in the lower house of the Legislature on the 14th inst. :

“By Mr. Stevenson—To require the State Board of Medical Examiners to grant licenses to physicians regularly licensed in other States.”

The passage of this bill would be one of the greatest disasters that could befall the State, and we sincerely hope that there will be found in the Legislature a sufficient number of thoughtful men to prevent it. To North Carolina belong the credit and honor of being the first of all the States to throw a wall of defense around her citizens to protect them from the ignorance of quackery and the imposition of charlatanry. From time to time the laws have been improved, until to-day they are the best in the whole country, and serve as a model for other States which are rapidly falling into line in this important matter. The passage of the above bill would be about equivalent to the absolute repeal of our medical law, as far as some individuals would be concerned, for there are some States that, while they require a license, grant such a license upon almost any claims the applicant may present. All that would be then necessary for a man to do to practise medicine in this State, would be to procure a diploma from some cheap medical college, run into one of those States that grant a license upon the presentation of a diploma from any incorporated college, and then present this license to our Board and require them to issue him a license to

practise here. We acknowledge that it would be a good thing if the different States could so formulate their requirements that an interchange of licenses would not affect the interests of any, but so long as the requirements in some States are so low, it would never do, and if the above bill becomes a law, it will take the Old North State from her position at the head of the list and place her on a level with the lowest. It behooves the members of the profession and all men who would have the lives of our people entrusted only to the keeping of competent physicians, to bring to bear all their influence in preventing such a calamity as this bill would inflict. Write at once to your representatives in both houses and warn them of the danger of such action as is proposed. Do not delay a day or an hour, but write at once, before a vote is taken on the bill.

The Duffy Prize of Fifty Dollars is offered for the best essay on *Materia Medica*, Indigenous in North Carolina. The essay should be type-written, signed in *nom de plume*, and accompanied by a sealed envelope containing the name of the author and bearing upon its back only the *nom de plume* of the writer. It should be in the hands of one of the Committee thirty days preceding the Society meeting. The Committee consists of Dr. R. L. Payne, Jr., Lexington; Dr. A. W. Knox, Raleigh, and Dr. A. Cheatham, Durham.

Read the advertising pages, and when you write to advertisers mention the JOURNAL.



T. B. WILKERSON, M.D.

Chituary.

THOS. B. WILKERSON, M.D.

The community, Adoniram, Granville county, N. C., was made sad on the 12th July, 1894, by the death of its highly esteemed and much beloved physician, Dr. Thos. B. Wilkerson, who spent thirty years of his life in the alleviation of suffering humanity in this vicinity. There is scarcely a family within the radius of twelve miles of his home that are not indebted to him for his skill and faithful attention during the trying hours of illness, and who do not equally mourn his loss.

It would not be an exaggeration to say that, as a physician and surgeon, he had not only the entire confidence of the community, but also of his brother practitioners who knew him, as he was frequently consulted by them and made chief operator in a case of serious surgery.

His fame as a surgeon is not circumscribed by counties and States, for, indeed, some of his operations have surprised the surgical world, inasmuch as they were new and original, an account of which he gave in his contributions to the medical journals.

Dr. Wilkerson was born in Granville county, N. C., August 14th, 1837, and spent his boyhood and youth in the neighborhood of his birth-place.

He took his literary course at the University of North Carolina; after which he entered the University of Pennsylvania, from which Institution he graduated in art and medicine in 1857. He displayed especial genius in surgery from the beginning of his medical career, and grasped

every opportunity to perfect himself in this art.

He had just finished a special course in the Philadelphia Hospital when the war between the States came on, and he went to the front at the earliest opportunity, where he soon took rank with the prominent surgeons of the army. He was one of the surgeons in General Jackson's corps, and was one of the attending physicians during his last hours.

Dr. Wilkerson was a close student, and, besides keeping eminently posted on the lines of his chosen profession, was well-informed on the current topics of the day, and one of the most interesting conversationalists it has ever been the writer's privilege to know.

Recognizing the conspicuous moral worth of this splendid man, his value to the public, and the sad vacancy his death has occasioned, the entire community share with his bereaved widow her sorrow because of her great loss.

D. T. W.

DR. OSCAR GREGORY.

We regret deeply to learn of the death of Dr. Oscar Gregory, which occurred a few weeks since at his home in Oxford, this State.

Dr. Gregory was a Virginian by birth, studied medicine with distinction at the University of Virginia, and graduated from Jefferson College, Philadelphia. He served during the Civil War as Surgeon of the Third Virginia Cavalry, and after the close of the war practised his profession in Virginia and North Carolina. In all of his relations, both as a physician

and a thorough gentleman, his distinguishing traits of truth, loyalty and modesty won for him the esteem and trust of his fellows.

Dr. Gregory became a member of the State Medical Society in 1883, and

though circumstances have prevented his frequent attendance at the meetings of the Society, he has always manifested a deep and loyal interest in its welfare. He was fifty-six years of age.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

Matthews—The leave of absence by surgeon's certificate of disability granted Major Washington Matthews, is extended four months.

Shannon—Leave of absence for three months on surgeon's certificate of disability is granted Capt. Wm. C. Shannon, Assistant Surgeon U. S. A.

Fisher—Leave of absence for one month is granted First Lieut. Henry C. Fisher, Assistant Surgeon.

Lynch—The leave of absence granted First Lieut. Charles Lynch, Assistant Surgeon, is extended one month.

De Shon—First Lieut. George D. De Shon, Assistant Surgeon, will proceed from Fort Logan, Col., to Fort Douglas, Utah, and report for temporary duty.

Pothemus—Ordinary leave of absence for one month and fourteen days, in addition to the extension of leave of absence on surgeon's certificate of disability granted him, is granted Capt. Adrian S. Pothemus, Assist. Surgeon.

Robertson—The leave of absence for seven days, granted Capt. Reuben L. Robertson, Assistant Surgeon, is extended twenty-one days.

THE NAVY.

Three weeks ending January 12th, 1894:

Bradley, Michael, Med. Director, detached from duty as a member of the Naval Examining and Medical Boards.

Kidder, B. H., Med. Director, or-

dered as member of the Naval Examining and Medical Boards.

Parker, J. H., Surgeon; ordered to special duty in connection with the investigation of the Ford Theater disaster.

Stone, Lewis H., P. A. Surgeon, ordered to study the subject and make a report to the Department of the therapeutic value of antitoxin in the treatment of diphtheria and croup.

Farenholt, Ammen, Assist. Surgeon, detached from the U. S. R. S. "Vermont" and to Naval Hospital Norfolk, Virginia.

Kindleberger, C. P., Assist. Surgeon, detached from Naval Laboratory and Department of Instruction and to the U. S. R. S. "Vermont."

Cooke, Geo. H., Med. Inspector, in addition to present duties will attend officers on duty at League Island Navy Yard, but residing outside of the Yard.

MARINE HOSPITAL SERVICE.

For the sixteen days ending December 31, 1894:

Purviance, George, Surgeon, relieved from command of service at Philadelphia, Pa., and detailed as Medical Inspector of Immigrants at that port, Dec. 18, 1894.

Mead, F. W., Surgeon, directed to proceed to New York City, N. Y., for temporary duty, Dec. 27, 1894. To rejoin station (Washington, D. C.) Dec. 29, 1894.

Carter, H. R., Surgeon, granted leave of absence for twenty-four days, in lieu of leave granted November 20, 1894, Dec. 21, 1894.

Peckham, C. T., P. A. Surgeon, to inspect unserviceable property at San

Francisco, M. H., December 26, 1894.

Kalloch, P. C., P. A. Surgeon, to report at Bureau for special temporary duty, Dec. 29, 1894.

Bratton, W. D., P. A. Surgeon, placed on "Waiting Orders," to date from January 1, 1895, December 26, 1894.

Magruder, G. M., P. A. Assistant Surgeon, granted leave of absence for ten days, Dec. 22, 1894. Leave of absence extended five days, Dec. 31, 1894.

Perry, T. B., P. A. Surgeon, to proceed to New York City, N. Y., for temporary duty, Dec. 28, 1894.

Cobb, J. O., P. A. Surgeon, granted leave of absence for three days, Dec. 28, 1894.

Perry, J. C., P. A. Surgeon, to pro-

ceed to Philadelphia, Pa., and assume temporary command of service, Dec. 18, 1894.

Aydegger, J. A., Assistant Surgeon, granted leave of absence for three days, Dec. 18, 1894.

Bluc, Rupert, Assist. Surgeon, to proceed to San Francisco, Cal., for duty, Dec. 18, 1894. Granted leave of absence for six days, Dec. 24, 1894. To proceed to Cincinnati, O., for temporary duty, Dec. 28, 1894.

Prochazka, Emil, Assistant Surgeon, granted leave of absence for twenty-five days, Dec. 17, 1894.

Cumming, H. S., Assistant Surgeon, leave of absence granted Nov. 17, 1894, cancelled Dec. 20, 1894. Granted leave of absence for seven days, Dec. 31, 1894.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Dr W. H. Wakefield has removed from Winston to Charlotte, N. C., for the practice of his specialty—diseases of the eye, ear, nose and throat.

Drs. Albert Anderson, of Wilson, and W. T. Pate, of Gibson's Station, have gone to Washington, D. C., where they will take a course in bacteriology under Dr. Kinyoun.

The F. A. Davis Co. announce that they will issue, early in February, a companion book to "Pscopathia Sexualis." It will be entitled "Suggestive Therapeutics in Pscopathia Sexualis."

The *Atlantic Medical Weekly* is the successor of the *Rhode Island Medical Science Monthly*. This first issue of the weekly edition is gotten up in good style and promises much for the future.

Dr. R. H. Stancell, Jr., of Margaretsville, has been wintering at Southern Pines, that charming winter resort, situated in the midst of the pine forests of Moore county. The Doctor rolls a pill occasionally as a pass-time.

Physicians throughout the State will greatly miss the genial face of Mr. F. W. Hancock, the popular pharmacist, who so long represented Messrs.

Parke, Davis & Co. in this State. We learn that Mr. Hancock has accepted the office of Teller for the Bank of Granville, in Oxford.

Eugene Sandow, the strong man, gave a private exhibition recently before a few Cincinnati physicians. He is 5 feet 8 inches in height, weighs 165 pounds, measures 38 inches around the chest and has an expansion of *fourteen* inches. All agreed that he was a *freak* pure and simple, and not the result of careful, systematic and intelligent training and exercise.

The State of Georgia has at last succeeded in securing the passage of a medical practise law. It provides for three Boards of Examiners—regular, hœmeopathic and eclectic. Not as good as it might be, by a good deal, and still a good deal better than none at all.

Write to your representatives at Raleigh to use their influence to prevent the passage of the bill requiring our Board of Medical Examiners to grant licenses to all who have been licensed by other States. It would never do until the requirements in all the States equal those in ours.

Many members of the Class of 1879 Jefferson Medical College of Philadelphia, are desirous of having a class reunion on the occasion of the 15th anniversary of their graduation. Owing to changes, comparatively few addresses are known, and therefore this means is resorted to, with the hope that every member of the Class of 1879 who reads this notice will communicate at once with their class President, Dr. Philip R. Koons,

Mechanicsburg, Cumberland county, Pennsylvania.

E. B. Treat, Publisher, New York, has in press for early publication the 1895 International Medical Annual, being the thirteenth yearly issue of this eminently useful work. Since the first issue of this one volume reference work, each year has witnessed marked improvements; and the prospectus of the forthcoming volume gives promise that it will surpass any of its predecessors. The price remains the same as before, \$2.75.

The Treasurer's report shows the estimated assets of the New York Academy of Medicine to be \$467,339.14, and the running expenses about \$17,000 per annum.

A bill has been introduced in the Iowa Legislature providing that every proprietary medicine shall have printed upon its wrapper a statement of the ingredients of the preparation. Failure to do this is punished by either a fine of \$100 or six months in the penitentiary.—*American Lancet*.

Both of the legs of a young lady of Boston were amputated at the knee recently to save her life. They were poisoned by the dye in red stockings which she had been wearing.

St. Louis now boasts of an electric ambulance. It is built after the general style of the ordinary trolley car, and uses the tracks and trolleys of the various street-car lines. It is claimed to be a success.

The "sun-down" doctors of Washington City will no longer be allowed to work their "side line." These in-

dividuals, who, from lack of ability to earn a living by their profession strictly, obtain government positions, use their time, after office hours, in treating patients. Uncle Sam very properly thinks a business which is liable to call a man out at all hours of the night, is liable to unfit him for office work next day, so he has informed these s. d. d's that, to continue to practise medicine, is equivalent to a dismissal from the service.

Dr. Dunnigan died of diphtheria at the General Hospital in Buffalo, on Friday of last week, despite the use of antitoxin. After the first injection the patient's condition continued to grow gradually worse until the end came. The physicians at the hospital are loath to express themselves positively on the case, but the general opinion seems to be that the case had hardly been a fair test of the curative powers of antitoxin, as its administration had come too late, when the system had become so thoroughly impregnated by the ptomaines that the counteractive powers of the antitoxin proved inadequate.

The publishers of the *Index Medicus* announce that this valuable periodical is threatened with extinction on account of delinquency in payments and lack of patronage. The subscription price is ten dollars a year, and it will be possible to continue the publication if five hundred new subscribers can be enrolled. The amount may be sent to the publishers, Mr. George S. Davis, Detroit, Mich. It will be a great misfortune if the profession is deprived of this quick aid to medical research, and it is to be hoped that those who are interested in this index to the current medical literature will give their

substantial support to this very deserving enterprise.

THE NEW HEALTH OFFICER OF THE PORT OF NEW YORK.—The profession is generally well pleased with the appointment by Governor Morton of Dr. Alvah H. Doty to the position of Health Officer of the Port of New York, to succeed Dr. Jenkins. For many years Dr. Doty has been in the service of the Board of Health, and he has won distinction by the excellent work which he has done in all the different positions that he has held. He was born in Albany and studied medicine in Bellevue Hospital College, New York, from which he was graduated with high honors in 1878. He soon afterwards became attached to the Health Department, and after serving in various capacities was promoted in 1892 to be head of the Bureau of Contagious Diseases. He is also surgeon of the Ninth Regiment of the National Guard.—*Boston Med. and Surg. Jour.*

HONORS TO DR. ROUX.—Dr. Pierre Paul Emil Roux has been promoted to the rank of Commander in the Legion of Honor, for "exceptional services rendered to science and humanity."—*Ibid.*

It is announced that the Medical School of Columbia College, commonly known as the College of Physicians and Surgeons, is to profit by further benefactions at the hands of the Vanderbilt family, amounting to more than half a million dollars, to be used in enlarging the anatomical rooms, the Vanderbilt Clinic and the Sloane Maternity Hospital, besides additional sums to equip the new portions of

those departments. In some of its features, we have reason to think, the anatomical department is already quite equal to any in the world, and, with the fresh resources now to be placed at its command, we see no reason why it should not soon be unsurpassed in every respect. The school, as a whole, is admirable and steadily progressive.

As we have often said, it is not the school alone, or even the medical profession, that profits by such munificent gifts, but the whole community as well.—*Ibid.*

Dr. W. C. Steele has removed from Tulin and located in Mount Olive, which he will make his future home.

Reading Notices.

Mr. H. A. Kaysan, 34 Bond street, Brooklyn, N. Y., has an advertisement in this issue which will be interesting to you. His instruments and other supplies are of excellent quality, and he does not want to take from you *all* of your money in exchange therefor. Write to him for catalogue and prices.

After an attack of the grip the patient finds himself in a state of extreme weakness and prostration from which condition he is tediously brought to his former good health. Remedies which stimulate his exhausted nerves too vigorously do so at the expense of his general condition. Then comes the relapse. Syr. Hypophos. Comp. McArthur conveys to the tissues the revivifying and vitalizing agent phosphorous in its most oxidizable and assimilable form. Thus the true vitality of the nerve structure is restored by renewing the nutrition of the tissues themselves.

TERRALINE IN LA GRIPPE.—I read with unusual interest an article on "Some Experiments with Terraline" in the November number of *Food*, showing that your conclusions are correct, and that we have a valuable addi-

tion to the therapeutic list, I submit the following case:

Miss ———, a young lady of delicate physique, aged about 20, had a severe visitation of la grippe, in the winter of 1891, from which she apparently recovered only to have a severe recurrence of it during the following winter.

I felt satisfied that my patient had had broncho-pneumonia in her last experience with la grippe, and even at the time of my taking the case her lung was crippled with an effusion of catarrhal products into the lung tissue. As she had taken cod-liver oil, iron, quinine, strychnine, etc., without experiencing relief, I immediately put her on "Terraline," manufactured by the Terraline Company, Washington, D. C. In a short time she experienced improvement in the appetite, with a gradual amelioration in the cough. Under the continued use of "Terraline," she reported herself in December last as "nearly well."

Throughout the whole treatment only "Terraline" was given, and I would emphasize the fact that improvement speedily began under its use.—J. R. GARBER, M.D., Stanton, Ala., in the *Natinnal Medical Review*.

Advertisers and others will please scrutinize this issue of the JOURNAL.

Now is the time to subscribe for the JOURNAL—only \$2.00—semi-monthly.

NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND SURGERY.

VOL. XXXV.

WILMINGTON, FEBRUARY 5, 1895.

No. 3.

Original Communications.

SURGERY ON THE WING—THREE SUCCESSFUL ABDOMINAL SECTIONS.*

By J. W. LONG, M.D., Professor of Gynecology and Pediatrics in the Medical College of Virginia, Richmond.

GENTLEMEN :—I offer you a short paper under the above title, not because I think *three* cases of abdominal section are sufficient to claim your attention, or because abdominal surgery can be done *better* "on the wing" than in a well-appointed hospital, but because the three cases aptly illustrate the *three most common conditions* for which abdominal surgeons are called to operate, and to show that a keen appreciation of aseptic surgery will enable a man to do good work anywhere under any circumstances. As I write this sentence the vision of Ephraim McDowell mounting his horse and riding from Lexington, Ky., to

near the Hermitage, Tenn., and with the aid of old Andrew Jackson removing an ovarian cyst, rises in my mind. I wish I could say, like McDowell, I feel the delectation of a fifteen hundred dollar fee in my pocket, but alas !

"Do I decry hospitals?" Never a time—I stickle for them; but must we let men and women die because forsooth they are not in a hospital?

I have been spending a short while at the old home place, Randlemann, N. C., and while here did, among other operations, the following sections :

CASE I. — *Appendicitis*. — Frank H., married, aged 35 years, had suffered with "cramps and colic in his bowels" at intervals for three or four years. On Friday he had quite a severe attack. Saturday and Sunday he was better.

*Being the paper accompanying Dr. Long's application for membership in the American Association of Obstetricians and Gynecologists, at its Toronto meeting, September, 1894.

Tuesday he cut wheat all day. That night he was seized with an intense pain in the right iliac region, "drawing him double." His attendant, Dr. W. A. Fox, promptly diagnosed appendicitis. I reached home the following Thursday. The next day I was asked to see the case. I confirmed the diagnosis and urged *immediate operation*. My "kit" had not yet arrived from Richmond. But that man needed an operation, and, like the fellow in Texas who needed the pistol, he needed it *bad*. Dr. Fox and his associate, Dr. J. O. Walker, put their armamentarii together, and, putting the patient on a dining table, rapidly anæsthetized him. Cutting carefully down, I came upon the *appendix distended to the bursting point*; the pus could be seen through

together by sutures, thus virtually turning the stump into the cæcum. The abdomen was thoroughly irrigated, about half of the incision closed with interrupted sutures and a Mickuliez drain used. The recovery was uninterrupted.

This case is a fair sample of the *vast multitude* of appendicitis cases, which are occurring daily, and yet men, good men, too, shut their eyes and say: "I don't have cases of appendicitis." I do not believe *every* case (nor even half the cases) of appendicitis should be operated upon, yet, while holding this conservative view, I have numerous operative cases, and they all get well when I operate prior to the advent of general suppurative septic peritonitis.



Fig. 1.

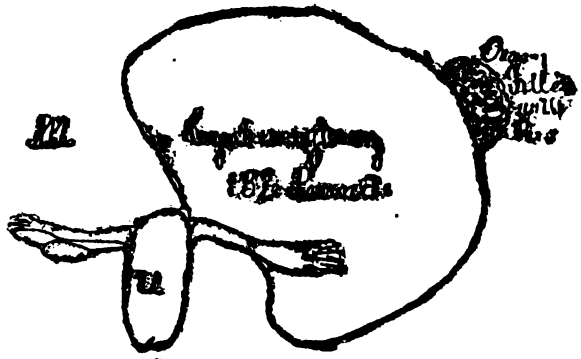


Fig. 2.

its thinned walls. A cough, a sneeze, suddenly turning over in bed, might have burst the sac and in a moment precipitated that man into a hopeless condition. The appendix was curled up behind and extended to the cæcum. Adhesions to the cæcum were dense, those to the anterior abdominal wall were more friable. With considerable difficulty the sac was enucleated. It was then ligated, cut off, the mucosa tied separately and the serosa brought

CASE 2—*Ovarian Tumor*—Mrs. C. H., aged about 35, two children, youngest ten months old. Noticed tumor three or four months after birth of her last child. It grew rapidly, and when seen by me her abdomen was the size of a seven month's pregnancy.

Diagnosis, multilocular cyst. Ovariectomy was done at the patient's home in Randlemann. I was assisted by Drs. Woolen, Fox and Walker, and

T. C. Walker, a member of our graduating class.

The operation possessed nothing unusual, except that I had failed to take my ovarian trocar with me, and rather than puncture the cyst with a scalpel, I made a long incision, notwithstanding the assertion by competent authority that it is better to puncture with a scalpel than to make a long incision. The recovery was perfect.

It may be said that ovariectomy is so simple that any tyro can do it; but what sane man is so rash as to assert that any but a master hand should do it?

CASE 3—*Endometritis, Chronic Interstitial Salpingitis, Retroflexion.*—Mrs. J. B., age 26 years, two children two and a half and five years old, no abortions, has not been well since the first

the tubes thickened and the ovaries enlarged and prolapsed. The retroflexion could be overcome bimanually, but there were evidently tubal and ovarian *adhesions* which would prevent the retention of the fundus in its normal position by non-operative measures. Here was a *condition*, rather than a disease, which justified and indicated an operation—a poor man's wife is bed-ridden; she suffers not intensely, but continuously; she ceases to be a helper as wife and mother, but is a burden to her family; the lesions present are, without exception, *progressive*; the sepsis inaugurated at her first labor and augmented at her second



Fig. 3.

child was born, for three years she has been in bed most of the time and for three months all the time. Her case has been variously diagnosed and treated. Examination discovered the endometritis, the fundus retroflexed,



Fig. 4.—Piece of omentum removed from Case 3.

will continue to exert its injurious consequences till, if not already so, tubes and ovaries will be totally destroyed functionally, and largely so

organically, and inseparable adhesions shall bind the fundus in an abnormal position. An operation would remove the diseased tubes and ovaries and put the uterus into a position favorable for drainage; besides, the patient lives far away in the country, and could not go to a hospital, rather must continue at home in bed; besides, I was there with my "gun loaded."

Operation was done at once with no assistance save the attending physician, Dr. C. H. Lewis, who gave the ether, the husband and two neighbor women. The tubes and ovaries were removed and the *posterior* surface of the fundus attached to the *anterior* abdominal wall.

The recovery was uneventful, except for the formation of an intra-mural abscess, which did not materially retard convalescence.

This case is the only one of the three in which the results were not *absolutely*

as good as if the operations had been done in the best-appointed hospital in the land. Indeed, I have yet to meet the abdominal surgeon who does not occasionally have suppuration at the site of the abdominal incision, whether he operates in a hospital or "on the wing."

This class of cases is a very numerous one in my experience, and nothing relieves them like curettage, removal of tubes and ovaries and suspension of the fundus. The curettage was omitted in this case because of a lack of assistance and because I could see the patient only the one time.

As evidence of the *rapid progress* of gynec surgery, I will add that, if I had this case to operate on now instead of then (only a few months ago), I would certainly remove the *uterus* as well as the appendages. The reasons for this I will set forth in another paper.

NOTE ON MANAGEMENT OF CLUB FOOT.

By. H. O. HYATT, M.D., Kinston, N. C.

It never rains but it pours. It has often happened in our experience that we get what might be called a run on a certain class of cases: Recently there has come under our care five club feet for treatment, no great number to be sure, if they had occurred in the practice of a specialist, but enough to tax our ingenuity as to the best manner of managing them.

Our method, although very simple, has proved highly satisfactory. But simple as it is, it did not come like an

inspiration, but was the result of painstaking care.

We have often experienced trouble in the management of the foot, whenever having a fracture near the ankle joint we wanted to put the limb up in plaster of Paris. The assistant, by grasping the heel and front of the foot, always had his hands in the way while we were applying the bandages, and afterwards a great deal of trouble in holding the limb straight and stiff until the plaster was well hardened.

The hands of an assistant on the heel and front of the small feet of our patients would leave us no space to apply the plaster after our usual method.

In preparing our bandages we select ten yards of common four-cent homespun, which is washed with soap to remove all the oil from the cloth—unless this is done the plaster will not readily stick to the bandage, the oil in the staple preventing its wetting readily. The bandages are from one to one and a half inches wide, the size of the foot determining the width of the bandage to be used.

We prepare strips of thin board—cigar-box material answers the purpose. This is cut the width of the foot, being made narrower for the heel. We formerly used plaster specially prepared for dentists, but after a trial find that the ordinary plaster, if baked in a stove to drive out all the water, will set just as quick. This we are in the habit of keeping in an old cosmoline can which has a screw top and keeps out all moisture.

The child, having had its feet washed with soap and water, is put under the anesthetic and the feet again washed, this time with a bichloride solution, one to one thousand, and a sterilized towel placed across the table under the feet. The contracted tendons are cut.

Taking up the splint, with the heel end from you, it is wrapped with the bandage, leaving an inch of the smaller end exposed. The wrapping is done from left to right, covering about two and a half inches. The splint is now applied close to the bottom of the foot and extending an inch beyond the heel. The foot is banded to the splint, the ends of the splint being held by the assistant, the bandaging is extended

five or six inches up the leg and pinned; a pin is also placed in the roller, which prevents it from coming undone.

About a teacupfull of plaster is placed in a plate, two or three tablespoonfulls of water added and the whole rapidly worked with the fingers, making stiff mortar. The assistant, grasping the splint by the free ends, twists the foot as near to the normal position as possible and holds it there. The plaster is spread thick and smooth over the foot ankle and for five or six inches up the leg. The bandage is now unpinned and applied over the plaster and pinned again. The surgeon's hands are now washed and mortar again made as before. The bandage is placed over this coat of plaster and left. The attendant holds the foot rigidly in position for ten minutes. This gives the plaster plenty of time to set. The end of the board extending beyond the toes, which should be left exposed, and beyond the heel, is trimmed off with a pocket-knife and the whole covered by a large stocking.

This method of using plaster is not the usual one. Our first knowledge of plaster as a splint came from a paragraph in a medical journal when plaster was first used, about twenty-two years ago. In the paragraph referred to the method of preparing the bandages was not alluded to, and a case soon presenting itself, we put it up after the manner described above. It answered our purpose, and we have never seen it advantageous to change. The materials are always at hand.

The advantage of a ten-yard bandage in putting up club feet is that it makes it easy to take off—as the bandage unrolls the plaster attached readily breaks and comes with it.

AN EPIDEMIC OF BOWEL OBSTRUCTION.

BY R. J. GRIMES, M.D., Bethel N. C.

On the first day of August, 1893, I was called to see James W——, who was suffering with all the symptoms of the above illness of four day's standing. On the following day I operated and found the gut quite discolored.

Obstruction was relieved and in seven days the patient was well.

On the 15th day of September, 1893, I was called to see Samuel C——, æt 13. Found bowel obstructed four days. On the following day, with the assistance of Drs. Hargrove and Nelson, I made the usual incision in median line; found ileum entirely obstructed with grape seed eight inches from cæcum. The ileum below the grape seed was very much discolored. I relieved the obstruction, followed the seed to within an inch of the ileo-cæcal valve, closed the abdomen, and in twelve days patient was well. On the day following operation patient had violent diarrhœa.

September 31st, 1893, I saw Bud B——, æt 15, suffering same as aforesaid patient. Found circumscribed tumor in the right iliac fossa. I soon relieved the obstruction, but the hectic symptoms did not improve. I also found the tumor would change its location from right to left side. On October 5th I operated with the assistance of Drs. Brown and Nelson. I cut through the abdominal wall and found a very large pus sac occupying the entire lower portion of the abdomen. The peritoneum was entirely separate from all its attachments below the umbilicus. The pus sac was about one-fourth filled. Abdomen was closed,

leaving in a drainage tube. In 21 days the boy was well.

October 10th, 1893, I cut through the abdominal wall of Richard M—— and relieved him of about one quart of pus surrounding his kidney. The patient recovered in a short time.

On December 10th, 1874, I was called to see a female patient of Dr. Jenkins', near Conetoe, and found bowel obstruction of six day's standing. Her condition was so serious that it was apparent that she could not live more than twenty four hours. I therefore operated by lamp-light with the assistance of Dr. Jenkins, and found the bowel bound down with bands, some of which were eight inches long and as large as my finger. I divided the bands by tearing and did not ligate. They were at least twelve in number.

In cutting through abdominal wall there was not sufficient blood to discolor a handkerchief. The hemorrhage from the bands was not severe. The bowel was discolored and very much distended above the obstruction. The wound was closed. There was no further pain or vomiting, and I understand the patient is now well.

During this space of time I saw other patients suffering the same as the above, but too late to relieve, the patients being in a moribund state.

I am quite sure that a large per cent. of patients with bowel obstruction die yearly, their physician having mistaken their disease for bilious colic or some other trouble. I do not think that the books are sufficiently explicit in regard to this disease as it occurs in our country.

I have not seen stercoraceous vomiting in a single case that I have had, and have discovered no tumor except in one case of appendicitis. In fact, there is no vomiting after the first day or two; but you will find instead a regurgitation of a bluish discolored liquid with coffee grounds sediment, which comes up with but little effort. The abdomen is generally smaller than

usual, but tympanitic. This you can readily understand when you remember that the large intestines (being below the obstruction) are collapsed. Notwithstanding the upper bowels are very much distended, they fail to enlarge the abdomen. They adapt themselves, however, over the entire abdominal cavity and cause tympanitis.

IMPERFORATE ANUS.

By J. R. HESTER, M.D., Prospect Hill, N. C.

On the 30th of October, 1894, I delivered Mrs. M. B., primipara, of a fine, plump male child of medium size. Upon examination I discovered that the child had no anus. The penis was of unusual size with a very large urethra. The penis measured about an inch in length upon the upper surface, the under surface being attached to the scrotum. There were two well developed testes. The under surface of the scrotum presented upon the left side a third apartment, apparently for the reception of a third testicle, but the sack was empty. It has, however, since filled up with what I believe to be fecal matter.

During the first few days after the birth of the child it passed the contents of both bladder and bowel through the urethra at the same time. When about one week old, it began to pass the urine and feces separately, the urethra, however, still acting as the passage-way for both.

The child continues to do fairly well, the bowels acting twice daily, on an average, and the bladder about as frequently as in other children of the same age.

Dr. Murphy and Robinson have both seen the child. Its parents live in

Orange county, North Carolina, about two miles from Prospect Hill.

CANNABIS INDICA.—Mackenzie (*Se-maine Medical*, No. 14, 1894) speaks highly of cannabis indica in all forms of cephalalgia. He has found it act favorably even in the severe headache attending cerebral growths. In chronic uremia, where opium is contra-indicated, it is especially serviceable. He has found the remedy to be almost a specific for that continuous form of headache which begins in the morning and lasts all day. In these cases the pain is generally dull and diffuse, but marked by occasional exacerbations. While it is rarely severe enough to interfere with occupation, yet it constitutes a source of constant annoyance to the patient. In such case the author administers morning and evening one-twelfth to one-half grain of the extract in pills. If these doses are not sufficient, he gives one grain in the evening and one-half grain in the morning. In very obstinate cases the dose is still further increased, the larger dose always being taken in the evening, until relief is afforded or toxic symptoms become manifest. — *University Medical Magazine*.

Society Reports.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Seventh Annual Meeting, held in Charleston, S. C., November 13, 14 and 15,
1894.

[Continued from page 13.]

Dr. William Perrin Nicolson, of Atlanta, Ga., presented a paper upon the report of a severe case of nævus which was cured by the use of galvano-puncture. The case was one of a large growth occupying the groove from the angle of the jaw up to and covering a portion of the ear and extending out upon the cheek, the entire tumor being almost the size of a hen's egg.

Dr. Nicolson formulated the following conclusions as having been reached in the long period covered in the treatment of this case :

1. That while this treatment may not be applicable to all cases, in many of those that are reached by difficult dissection and are subject to dangerous hemorrhage, as well as an unsightly looking scar, this is undoubtedly to be preferred to any other surgical proceeding. The time required in a cure is more than balanced by the entire preservation of the skin and the absence of danger from operative work.

2. That as to the quantity and quality of the current to be employed, as many as six cells of a zinc-carbon battery may be sufficient in small growths, while twelve cells of the same is perhaps the maximum to which it should be carried if the current from the positive pole alone should be employed

3. The method of applying needles.

Various forms of needles may be employed, but the ordinary steel needle gives equally satisfactory results, as the eschar produced in the skin at the point of entrance is not sufficient to amount to anything, and the needles can thus be changed at each sitting. That only one of them should be inserted into the tumor, while the negative pole should be attached to a sponge electrode moistened with a soft solution and placed upon some indifferent point, care being taken to remove it from point to point in order to prevent blistering the skin.

4. Method of attacking the tumor. Better results are obtained by passing the needle in from the periphery of the growth on a line horizontal with the skin and in directions radiating from the circumference towards the center. Several of these punctures should be made at each operation. The length of the entire sitting should not extend to more than twenty minutes or half an hour, while intervals of two to three weeks, or longer, should be left between operations to know whether there may not be a progressive shrinking away of the tumor.

5. As to the method of cure. The author thought that several elements entered into attaining the result, of which the coagulation of the blood was

one, and perhaps the least. The two remaining elements were the subsequent contractions of the small eschar produced in radiating lines from the tumor and the effect of the current upon the vaso-motor nerve supply.

He felt sure that a thorough trial of this method as to the settling of the various points considered, would result in its adoption in the treatment of perhaps a large majority of those cases where we have a large elevated blood tumor with which to deal. He also believed that perhaps pricking the surface with the needle attached to a positive pole of battery might result in a series of small scars which would result in removing the ugly port-wine marks so common in this trouble.

Dr. Joseph Price, of Philadelphia, followed with a paper entitled *Operation for Complete Perineal Laceration*, in which he said that there are many men who, essaying to be authorities on the surgical diseases of the major order, have no conception whatever of injuries of the perineum and cervix so far as their intelligent repair is concerned. Indeed, there are many with a large obstetrical practice who labor under the delusion that they have never ruptured a perineum, and that all their patients have entirely normal perinea. This misconception is due to improper teaching more than to any other cause. Perineal lacerations, unless extending through the skin to or through the sphincter, may escape detection unless by thorough digital examination. All these tears should be approached as distinct surgical lesions to be repaired in the line of their anatomical destruction, and not as cosmetic operations, whose object is to obtain superficial appearances without regard to perfec-

tion and utility. Heaping up of tissue outside the lines of resistance and tension, or mere thickening of mucous membrane and skin does not make a true perineum, neither does a set of outside sutures, however much they may draw the parts together, afford any anatomical counterpart of a perineum. From this basis all the so-called outside flap-splitting operations for perineal tears are only puckering operations, bringing parts within the sutures that have never been severed, and in many cases taking them out of their proper relations. Big sutures, heavy ligatures, clumsy instruments have no more place here than in other surgery. The ordinary short strong sewing needle fills the bill exactly in most cases, although the Emmet stryfine short needle for general use is preferable. Silkworm gut or silver wire is the preferable suture. The Emmet operation, as originally suggested and modified afterwards by its distinguished deviser, is the foundation for all successful operations on the lacerated perineum, either with or without sphincter tear.

After the reading of Dr. Price's paper, Dr. Engelmann, Vice-President, took the chair, and President Kollock delivered his Annual Address, in which he first thanked the Association for the honor conferred upon him. He then alluded to the death of Drs. W. T. Briggs, of Nashville, and A. B. Miles, of New Orleans. Dr. Briggs's life had been one of usefulness. He had done excellent and remarkably brilliant work, and had achieved an enviable reputation. Dr. Miles, who had been made Professor of Surgery in Tulane University, was a man full of youthful activity and manly vigor, who, by

patient study and diligent research, aided by a brilliant intellect, had won for himself a high position in the profession and in the estimation of his fellow men. To know him was to admire and love him. "His life was gentle and the elements so mixed in him that Nature might stand up and say to all the world, This was a man."

While in all branches of gynecology good progress had been made, he noted with pleasure that surgery had had its triumphs. Many reports of cases show enlarged experience and continual improvement in the treatment of appendicitis, hernia, intestinal obstruction, and many other ills that flesh is heir to.

Dr. Bedford Brown, of Alexandria, Va., read a paper on—

Observations on the Action of Chloroform on the Functions of the Human Brain and Spinal Cord, as Witnessed in Extensive Injuries of the Cranium and Brain.

Dr. Brown cites the history of two cases of extensive compound comminuted fracture of the os frontis and serious injury and destruction of a portion of the frontal lobes of the brain as the basis of his paper. One of these cases of injury was caused by the kick of a newly-shod horse, the other by a spent grape-shot in battle. The subjects of both of these injuries retained perfectly their powers of consciousness and sensation.

The history of the first case was published in the October number of the *American Journal of Medical Sciences*, 1860, and occurred in the summer of that year. The fracture in that case involved a large portion of the os frontis. The fractured bones were driven back into the substance of the brain quite an inch in depth, lacerating

the frontal lobes extensively. There was a loss of about two tablespoonfuls of brain. During the operation, which lasted more than an hour, the patient was placed under a compound of chloroform three parts, ether one part, four different times. Through this large opening in the skull the brain could be seen perfectly and its varying change of action under chloroform could be observed perfectly. The invariable action of the anesthetic was to suppress hemorrhage, to quiet cerebral pulsation and to positively reduce circulation in the brain and arterial tension. These peculiar effects were observed as many as three or four different times. When the patient was threatened with collapse from chloroform, stimulants injected in the rectum produced increased circulation and arterial tension in the brain promptly.

Any struggling, mental excitement or resistance while inhaling chloroform, caused marked increase in cerebral circulation and pulsation with increase of hemorrhage.

The second case was that of a Confederate soldier, who in battle received a spent grape-shot in his forehead, causing an extensive compound comminuted fracture of the os frontis, driving the fractured bones back more than an inch into the frontal lobes. The wound in the skull was quite two inches in diameter and more than an inch in depth.

This patient was subjected to chloroform three times during the operation, which lasted an hour. The action of chloroform on the functions of the brain in this was similar to that in the first. When under full anesthesia, each time the cerebral hemorrhage ceased, the cerebral pulsations dimin-

ished to a mere tremor, and the arterial circulation was markedly reduced. This occurred three different times during the operation.

The action of alcoholic stimulants resorted to in this case to prevent collapse from chloroform increased the cerebral pulsations and circulation in a positive manner.

Hydro-pyonephrosis; Successful Removal of a Forty-pound Tumor of the Kidney, by Dr. Joseph Taber Johnson, of Washington, D. C. The patient was 65 years of age, and had inherited and possessed until five years ago a remarkably good constitution. At this time a lump appeared in his right side in the region of the liver, and was supposed, up to the date of the operation, to be caused by enlargement and abscess of that organ. This lump gradually increased in size and the patient had gradually lost flesh and strength until the date of the removal of the lump, when he could not have weighed more than 80 pounds. At no time did he suffer from pain, and only a few weeks with fever.

There were several points of interest in this case, viz: failure of a number of good men to make a diagnosis, though the patient was under observation for nearly five years. Failure of repeated examination of the urine to detect the slightest evidence of disease of the kidney. The only explanation the writer suggests is that the disease at the time of analysis and subsequently had so destroyed the function of the kidney as to prevent the escape of any urine at all, and that the specimens examined all came from the other organ, which fortunately was healthy. Failure of such large quantities of foul-smelling pus to produce more

sepsis; absence all through the history of pain or fever; the median line incision; the separate ligation of the renal vessels and the ligation and dropping of the ureter.

The writer is aware that the lumbar incision is preferred by nearly all nephrectomists, and that they often bring out the cut end of the ureter and faster it to the abdomen.

While the lumbar incision may be best in small tumors and otherwise disease of kidneys, it certainly could not have succeeded, the author believes, in a case of the magnitude of the one here reported, not only on account of its great size, but also because of its being so extensively adherent to the omentum and abdominal wall. The colon had to be carefully separated from the anterior surface of the tumor.

Dr. W. L. Robinson, of Danville, Va., read a paper entitled Report of Cases.

He reported two cases of gunshot wounds of the abdomen, lacerating the liver and bowel. In neither case were the symptoms commensurate with the injury; neither shock, hemorrhage nor pulse portrayed the necessity for operation. Yet, in view of the 92 per cent. mortality from gunshot wounds of the belly without operation, he did not hesitate to operate. The first case came so near dying on the table, and his light being imperfect at 12 o'clock at night, he only found the liver wound, failing to find the hole in the posterior border of the hepatic flexure of the colon. The patient died in three days.

His second case was operated on promptly, and the injury in the transverse and descending colon was promptly repaired with the Murphy button. The

man was on a spree and had had no action from the bowels for three days. The doctor pressed out much fecal matter, but said he should have taken more time and ruptured the bowel as far as practicable. For two days no unfavorable symptoms presented themselves, but on the night of the second day distress from tympanites and pain began. He suggested to his associates the propriety of reopening the abdomen, but enemata and grain doses of calomel were tried. This, the author considered, was his fatal mistake, for the waiting of ten hours had lost him the chance of a life-saving operation. He opened the abdomen and with medium-sized trocar emptied the bowels of gas, but exudative lymph was manifest on bowels, and obstruction of button by feces existed. The button held its tissues firmly, and no leakage had occurred. The cavity was washed out, but the patient died in ten hours of shock.

Dr. George Ben. Johnston, of Richmond, Va., followed with a paper on Movable Kidney.

At the outset the author emphasized three propositions: (1) Movable kidney is extremely common. (2) It is capable of producing very distressing symptoms, and in many instances is a menace to life. (3) It is curable by a simple and safe operation.

The author's own experience with movable kidney from a surgical standpoint extends back a little more than three years. Prior to the first nephrorrhaphy, which he performed in May, 1891, those cases he had met with were given little or no thought. Since the date mentioned he had looked with more interest on his cases, and has come to marvel at the frequency

of the malady. He has examined a limited number of persons likely to be the subjects of movable kidney since his first operation for its relief, and in a comparatively small number of subjects he has encountered twenty-seven cases. Edebohls, who has studied five hundred cases, fixes the rate at one for every five or six women examined. Linder gives about the same rate. Osler makes no statistics, but mentions it as a common occurrence in his hospital wards. The records of these observers and Dr. Johnston's cases justify the assertion that it is a common malady.

It occurs more often in women. He had never seen one in a male subject. Age is a factor in its production. His own cases have been in subjects varying in age from 20 to 35 years. In only one instance has he seen it in a woman over 40. Both kidneys may be movable at the same time. The right kidney is the one affected in the preponderating majority of the observed cases. This is accounted for by the relation of the kidney to the liver on this side.

Two anatomical facts help to explain the preponderance of the right over left kidney displacement. (1) The greater length of the right renal artery. (2) The firmer attachments of the left kidney. The author has twice seen a movable kidney follow obstruction of the ureter. It happened that both of these cases were on the left side. The increased weight of the kidney due to accumulated urine and congestion must have played an important part in the etiology of the dislocation in these two cases.

In many cases of movable kidney there are no symptoms. In others the

symptoms are extremely distressing, producing great mental disquietude as well as intense physical suffering. In a proportion of cases the symptoms are grave. Torsion of the ureter is common, partial occlusion by bending is not uncommon, inducing a distension of the pelvis by dammed-up urine. Hydronephrosis may follow. Calculus is thus invited by reason of poor drainage. Apart from tumors of the kidney itself, the condition most likely to be mistaken for movable kidney is distended gall-bladder.

Nephrorrhaphy is not indicated in every case of dislocated kidney, but

only in such cases as manifest distressing or dangerous symptoms. When a gastro-intestinal disturbance impairs the general health, when nervous symptoms are severe, when the dragging abdominal pains are constant, when disease of other organs is simulated, when hydronephrosis is threatened, when one or more attacks of torsion have occurred, the operation is made imperative.

The author then outlined his method of operating on movable kidney, and closed his paper with a report of seventeen cases.

To be continued.

Selected Papers.

A CLINICAL STUDY OF EMPYEMA IN CHILDHOOD.

BY W. E. HUGHES, M.D., Ph.D., Philadelphia, Pa.

[*Continued from page 34.*]

The physical signs upon which we rely for a diagnosis between empyema or any other pleural effusion and pneumonia in a child are, of course, the same as those we have at our command in an adult, but while in an adult this diagnosis is easy and sure, in childhood it is generally difficult and occasionally impossible. The physical signs of effusion may be so clearly marked as to indicate at once the nature of the case. Most notably is this true where we can demonstrate movable dullness or displacement of neighboring organs, though there are many cases where, while these signs cannot be elicited, the others are still distinctive. When,

on the other hand, they are not clearly marked and simulate almost perfectly those of pneumonia, the one on which most reliance can be placed for a diagnosis is the breath-sound. In effusion the tubular breathing differs slightly, it is true, but significantly from that of pneumonia in being sharper, more metallic, more superficial, but not so loud, there being an accentuation of character at the expense of volume. Râles are next in importance. When they are present they are more metallic and distant, they give the impression of being conducted from a distance. The voice-sound, too, is of some importance, it is a trifle more

metallic and higher pitched than in pneumonia. Tactile fremitus cannot be relied upon at all in a young child as a diagnostic sign. It is difficult to elicit it satisfactorily enough for accuracy, and when it can be elicited it is very likely to be as prominent in empyema as in consolidation.

As between serous and purulent effusion the diagnosis is even more difficult, and I have been accustomed to rely here upon the history of the case and the general appearance of the chest rather than upon the physical signs. In acute cases the history will furnish no definite diagnostic hints, but where the fluid has remained unabsorbed for some time, and, more important, where there has been marked deterioration of general health, a diagnosis of empyema is to be made, and this is strengthened, if, in addition, there is present an irregular fever with sweating. Of more moment still than the history is the appearance of the chest. In empyema the affected side looks rather fuller, the superficial veins are more prominent, and, most distinctive of all, there is often a peculiar glossy appearance of the skin, which indicates pus. This is not an edematous condition of the chest-wall, but resembles edema closely in appearance, though the tissues do not pit on pressure.

Physical signs, as was said, are unreliable in the diagnosis of the nature of the effusion. The S-shaped line of the upper limit of the effusion, and the freedom with which the area of dullness changes its position with the change of position of the child are dependent on the amount and tension of the fluid, and not on its character. Bacelli's sign, whispering pectoriloquy,

is not reliable. Whether it be absent or present, probably depends altogether on the tension of the fluid. In two of the cases cited below this whispering pectoriloquy was present, even though the effusion was thick pus. In adults I have had the same experience; here, too, it is not to be relied upon.

As the diagnostic symptoms and signs may be so indefinite, it becomes necessary to make in many cases an exploratory puncture. This in a child can be easily and harmlessly done. Even though the needle may be plunged into lung-tissue, no danger is to be apprehended. This exploratory puncture is often our only means of making a definite diagnosis between pneumonia and effusion, and oftener still the only way we have of determining the kind of fluid present. It may be made with an ordinary hypodermic syringe, but better with an aspirator, so that if fluid be found its immediate evacuation may follow. As has been said, an empyema is sometimes formed on a basis of a simple serous effusion, so when the progress of the case is not satisfactory, a series of punctures must be made extending over a series of days, and sometimes such persistence will be rewarded by the eventual discovery of pus. This empyema must not be attributed to the exploratory punctures, for if made with proper precautions they are absolutely harmless and incapable of producing pus.

The diagnosis of the variety of empyema can be made with certainty only by a microscopic examination of the pus, but there are some clinical facts often prominent enough to warrant a tentative diagnosis in the absence of opportunity to make such examination. *Pneumococcus empyema* usually fol-

lows or accompanies a pneumonia, is acute in its character, with prominent but not very serious symptoms. It has a tendency to perforate the lung and evacuate itself through a bronchus. The pus is creamy and thick. Tuberculous empyema is essentially latent, slow in its accumulation, may be irregularly localized and may eventually perforate the parietes. Its pus is thin and often flocculent. Empyema due to pus organisms is frequently latent, or when acute has prominent and grave symptoms. It is not likely to perforate. It frequently follows the specific fevers or some demonstrable pyogenic lesion. The temperature may be remittent. The pus is thinner than in the first variety, but thicker than in the second.

The following cases are introduced because they have recently been under observation, and because they illustrate quite well the course and termination of metapneumonic, the commonest form of empyema:

Case 1.—Girl, aged 7 months. Five weeks before coming under my observation the child, well nourished at the time and in remarkably good health, had been taken suddenly with a markedly febrile attack attended with severe general symptoms, constant harassing cough and very rapid breathing. The diagnosis made at this time by the attending physician was pneumonia, and, from what I was able to gather from the history of the case, as detailed by the parents, I have no doubt was the correct one. The subsequent history is necessarily indefinite, but with all its indefiniteness still remarkably characteristic of pneumonia. At the end of a week the symptoms ameliorated, the temperature declined, but

there was at no time a perfect restoration to health. Soon what little improvement had been gained was lost, emaciation progressed, appetite failed, and, finally, in the eyes of her parents, the child was more seriously ill than in the initial attack. When I first saw her she was extremely emaciated, appetite poor, stomach not always retentive and bowels often irregular. Respirations were shallow and rapid, ranging from 60 to 70 in the minute with fine play of the alæ nasi. The heart's action was quick, weak and labored, the apex beat in the fifth interspace, just outside the nipple line. The general surface was a little cyanotic and the finger-tips beginning to be clubbed. The temperature was irregular, occasionally normal, but oftener above, sometimes reaching 103° F. There was absolutely nothing regular about the temperature curve, the exacerbations occurring quite as frequently in the morning as at any other time, and on alternate days there might be almost apyrexia and sharp fever. The right chest was distinctly fuller than the left and showed less movement. The interspaces were thought to be somewhat prominent. The cutaneous veins were certainly fuller than those upon the opposite side, and there was a general glossy appearance of the skin, though there was no edema. From apex to base this side was perfectly dull, with a distinct sense of doughy resistance, tactile fremitus was poor and breathing tubular. As well as can be gotten in a child of this age the voice-sound, as determined by the cry, was that of a nasal pectiloquy, and when the cry was almost suppressed and partly sobbing, what might answer to whispering

pectoriloquy could be plainly heard. At no point could any signs be located which might serve to indicate beneath, the existence of a compressed lung. It was impossible at first to gain the consent of the parents to aspiration, but this was at last obtained, and, with the assistance of Dr. W. S. Carter, I drew off seven ounces of thick, creamy-yellow pus, blood-stained at the last from laceration of adhesions by the end of the canula. The child's condition immediately before aspiration was interesting; we were assured positively by the mother that almost twenty-four hours previously the child had become suddenly and distinctly easier, and that this improvement had been coincident with the establishment of a loose cough with free expectoration. The inference, of course, was that the empyema had ruptured into a bronchus and was discharging. Careful physical examination, however, failed to show any change in the physical signs, and the results of the aspiration most definitely negated any communication with a bronchus. It is interesting, too, to note how the lung—compressed absolutely as it must have been for at least a month—behaved after aspiration. Immediately after all the pus had been withdrawn the lung filled fully the pleural cavity, everywhere a good respiratory murmur could be heard replacing the previously existing tubular breathing, and over the whole side was a clear tympanitic percussion note. For a few days after the aspiration fluid, presumably pus, slowly reaccumulated, then it was slowly absorbed, and a month afterwards the lung was apparently perfectly normal. From the time of the aspiration the temperature was normal and the bodily

condition of the child steadily improved.

Case 2.—Girl, aged 4 years. Seen in consultation with Dr. F. H. Milliken. Two weeks previously she had had a mild attack of pneumonia involving the lower lobe of the right lung. The symptoms were not at all grave and the physical signs rather those of broncho-pneumonia. There were spots of imperfect consolidation scattered through lung-tissue apparently unaffected. The temperature fell by crisis at the end of a week, and for a few days she was apparently rapidly returning to perfect health, when the original symptoms returned. When I saw her her fever was moderately high and continuous. There was irregular, but not marked sweating; face a little dusky; cough constant; dyspnoea very marked. Complained greatly of pain in the left side, which was tender to the touch. Left chest was dull from apex to base; breath-sounds tubular; whispering was pectoriloquy. Twenty ounces of thick, creamy pus were withdrawn immediately, with prompt relief to the symptoms. Within three days the pleural effusion had partially reaccumulated, there was still some fever, but the symptoms were nowise as urgent as before the aspiration. At this time she passed out of Dr. Milliken's care and the subsequent history is indefinite. She is said to have been ailing for some weeks, and at one time to have expectorated large quantities of purulent matter. However, she eventually made a good recovery without any further operative interference.

Class 3.—Boy, aged 6 years. Two weeks before coming under observation had what was said to be gripe, but what was really, in all probability,

from the symptoms, a mild pneumonia. He did not recover from this, and when I saw him was emaciated, had a distinctly hectic temperature, coughed incessantly, with little expectoration, and complained bitterly of pain in the right side. Physical examination showed over the lower half of the right chest immovable dullness and absence of breath- and voice-sounds. Tactile fremitus over the dull area was exaggerated as compared with the corresponding area on the left side. Exploratory puncture showed pus. The parents refused to permit aspiration. A week later he began to expectorate freely large quantities of pus containing pneumococci. Coincidentally with this there was a distinct improvement in his symptoms, and a week later a marked decrease in the area of dullness could be demonstrated. His improvement progressed uninterruptedly, and in six weeks from the first purulent expectoration he was apparently perfectly well. At this time there could be detected nothing wrong in the right lung.

Case 4.—Boy, aged 2 years. Had a severe attack of pneumonia with complete consolidation of the upper lobe of the right lung. Was discharged at the end of ten days apparently perfectly convalescent.. Two weeks later, when I was again called to see him, there was dullness throughout the whole of the right chest, tubular breathing, distant metallic râles, exaggerated tactile fremitus. The right chest was enlarged, the veins dilated, the skin glossy and a little dusky. Exploratory puncture showed pus. The general symptoms were not pronounced. The child was evidently not well, was peevish and fretful, but

walked about and made occasional attempts to play. There was neither fever nor sweating. The parents refused aspiration, and the child was placed upon supporting treatment, with occasionally a sedative to relieve the cough, which was not very troublesome. For some months there was no change in the general condition nor in the physical signs. Then a gradual improvement began, and the fluid in the chest lessened. Nine months after the beginning of the empyema the fluid had apparently been all absorbed, and the pleura was much thickened generally, and the breath-sounds so harsh as to suggest quite an extensive fibroid change in the lung. During the next four months the lung gradually cleared up, till at the end of that time the respiratory murmur was perfectly normal, and there was no evidence of any thickening of the pleura.

In these cases will be noticed two methods of the termination of empyema. The first is by penetration of the lung and evacuation through a bronchus, and is shown in *Case 3* and possibly in *Case 2*. This method is unquestionably more common in childhood than in adult life; but why this should be so cannot be determined, nor is the exact process by which it is accomplished at all understood. That discharge through a bronchus is in some manner connected with the nature of the effusion is evidenced by the fact that this event is much the most common in metapneumonic empyema. In fact, from the frequency with which it occurs in this form, this would seem to be here the normal termination of empyema. The amount of effusion seems to have little to do with it, small localized empyemas not

infrequently terminating thus. It can easily be supposed that the pneumonic lung, which has given rise to the empyema, will, by virtue of its condition, yield more readily to the entrance of pus. Or the reason may still lie in the condition of the lung and yet be a purely mechanical one, the consolidated portion being incompressible may offer an easy outlet. This attempt on the part of nature to heal not always results in a perfect success, and is too often abortive. When, in addition to pneumococci, pus organisms are present in any considerable number, extensive destructive lesions of the lung may be set up by their introduction into its tissue, vitiating the good done by the liberation of the pus. If the organisms be not inimical to the health of the lung, a small fistulous tract may be formed, through which the pus is forced principally by coughing, and the lung, readily expansible as it is in childhood, easily follows the lowering fluid till it finally is closely reapplied to the parietes throughout the whole pleural cavity, and a cure results. During this process air is rarely admitted, the pressure of the effusion more than counterbalancing that of the inspired air. The other method of terminating referred to is absorption of the pus. This must in itself be an event of great rarity, but that it may occur is proven by the case cited. While this termination is of little importance as a curative measure, yet secondarily in connection with other processes it becomes of great service. From the nature of the pleural cavity it is practically impossible that it should be thoroughly drained except after the lapse of such time when the assistance of the expanding lung is brought into

play. But if we grant that the contents of an empyema may be spontaneously absorbed, it will at once be seen why a single aspiration may be successful, or an empyema may heal a very short time after the perforation of a bronchus. The pus is here by no means all drained off. Merely enough is abstracted to permit of the rapid absorption of the remainder. So we get a more hopeful prognosis, but at the same time we must not permit ourselves to rely too much upon this assistance of nature. The third method of cure, and one which must be spoken of, as on it is based all operative procedures, is by perforation and evacuation by channels other than the lungs. The most common point of perforation, and fortunately the one most likely to lead to cure, is the chest-wall. Many other points of perforation have been recorded, but none of them are favorable, and little likely to lead to fortunate results. In childhood, when perforation of the chest-wall takes place, this usually occurs high up, often in the second interspace, and yet the discharge of pus takes place at this point as freely as though it were at a point more favorably situated for free drainage, showing that the pus is really forced out by the expanding lung and not drained away. That this perforation is not more frequently followed by perfect cure is due to the condition of the lung and to the variety of empyema in which it occurs. If the lung, in addition to being collapsed, is partially consolidated or has undergone any degree of fibroid change, its expansive power will be so slight as to be of little use in forcing out the effusion. Tubercular empyema is the form which is most fre-

quently followed by perforation, and here, from the nature of the process, the outcome can be nothing but disastrous. In empyema due to pus organisms perforation is uncommon. When it does take place it is through the chest-wall, with the possibility, though not probability, of ultimate perfect cure. In this form the lung would seem to be seriously crippled, probably by a dissemination throughout its structures of the pus organisms, and consequently less able to expand, and so aid in the drainage of the pleural cavity. If the case be left wholly to nature, long continued suppuration is likely to result, with its necessarily bad termination.

For some time after the existence of an empyema the lung is simply compressed, there is no organic change in its structure. The pyogenic membranes covering its surface do not seem to organize and contract as early as in an adult, so that expansion easily follows removal of the pus. But eventually a fibroid change takes place in the pulmonary tissue, seriously impairing its elasticity. This is most marked and earliest brought about where pus organisms are present, and seems to be the result of the presence of these organisms, rather than of the mechanical collapse of the lung. The process is inaugurated by a widely-scattered catarrhal condition of the vesicles and finer bronchi. Eventually this involves the fibrous tissue and a thickening and contraction result.

Treatment.—Prompt evacuation of the pus as soon as its presence is recognized is the only measure that can be taken which promises any good result.

In metapneumonic empyema a single aspiration may, and undoubtedly often does, effect a cure. The chest must be emptied as thoroughly as possible, the only precaution being taken to proceed slowly with the evacuation in order to give the lung plenty of time to expand, and to run as little risk as possible of the oozing of blood from the congested pleura. There will always, even in favorable cases, be some reaccumulation of pus, but this ought to subside shortly by absorption. If it does not subside, or if there is any excessive reaccumulation, a second evacuation is necessary, and this is to be repeated till it is positively demonstrated that a cure will not thus result before more radical measures are adopted. While it may be necessary to eventually introduce a drainage-tube, yet temporizing by means of aspiration does no harm. I cannot deprecate too strongly from my own standpoint the placing of all empyemas in children in the hands of a surgeon, for I am certain that in a notable number of cases simple aspiration is perfectly competent to effect a cure. Where the case has existed for a long time, or where pus organisms are the exciting cause, or where repeated aspirations have failed, the introduction of a drainage-tube is necessary. There is only one class of cases where resection of ribs is to be advised—that is tuberculous empyemas. In all the others it is not necessary to go further than aspiration or a drainage-tube.—*University Medical Magazine.*

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Editorial.

THE STATE HOSPITAL AT MORGANTON.

We have before us the Report of the Superintendent of the State Hospital for the years 1893-4. During this time the daily average of patients was a fraction over 556. There were discharged recovered 132; improved 32; unimproved 11; not insane 3; died 67. The cost of maintaining the patients was, after deducting the cost of new buildings and permanent improvements, about \$150 per capita. The Superintendent estimates the increase in the number of inmates for the next two years, made possible by the building of new quarters, to be 140, and for the support of these he asks for an increase on the appropriation for the past two years, which will be a per capita of only \$70. Think of it and

compare it with the cost of maintaining paupers in the County Homes. New Hanover county lets out the keeping of her indigent poor to the *lowest bidder*, and yet she is now paying for their maintenance \$78.32 *per capita* per annum.

The efficient Superintendent, Dr. P. L. Murphy, is to be congratulated upon the marked success with which he has managed the affairs of the Hospital, and, while increasing year by year the comforts of the patients and bringing about a constant betterment of their condition, having constantly reduced their per capita cost until it has reached the low figure of \$142, which is his estimate for the next two years.

Our Legislators may well study these figures and note the vast improvement that has been made in this Institution

under its present Superintendent. They should take a hint, too, from the fact that 140 additional patients can be maintained at a cost less than that in the average poor house. Would it not be wise, then, to so enlarge the present institutions so that all of the State's insane may have the advantage of the greater comforts and prospects of recovery which they would find at these hospitals? The counties have to bear the expense of their maintenance at the poor-houses. Would it not be *economy* to remove them to the State Hospitals, if they can be maintained at less expense? The people pay for it whether these unfortunates are cared for by the county or the State. Therefore if the State can provide for them at a lower rate than the individual counties, it will *save the people money* if the State takes them.

We see it would be wise from a pecuniary stand-point—how is it from a humanitarian point of view? Any one who knows anything about the average poor house in North Carolina, will not hesitate to answer that these places are by no means fit for these

afflicted people. The keepers are generally ignorant persons, often cruel, and there are numerous cases where the insane inmates have been cruelly and inhumanly treated. They are looked upon rather as criminals than sick persons, they have only the commonest and coarsest of food, there is nothing to cheer and encourage them, and, in short, there is no hope and but little possibility of their improvement as long as they have to remain under such adverse conditions. Let them go to the State Hospitals and they are constantly under skilled medical supervision, they have kind and attentive nurses, they are neatly and cleanly clad, they receive such food as will best nourish them, they are given such outdoor exercise as is best suited to the condition of each, and we see from Dr. Murphy's report that, for 264 admissions, *one hundred and thirty-two were discharged recovered*.

What more convincing argument could be advanced in favor of adding to, rather than taking from, the work the State Asylums are doing?

Reviews and Book Notices.

A Dictionary of Medicine. Including General Pathology, General Therapeutics, Hygiene and the Diseases of Women and Children. By Various Writers. Edited by Richard Quain, Bart., M.D., Lond., LL.D., Ed., F.R.S., Assisted by Frederick Thomas Roberts, M.D., Lond., B. Sc. and J. Mitchell Bruce, M.A., Abdn., M.D., Lond., with an American Appendix by Samuel Treat Armstrong, M.D., Ph.D., New Edition, Revised Throughout and Enlarged. In two royal octavo volumes comprising 2,518 pages. D. Appleton & Co., New York, 1894.

The conditions which prompted the

editor to produce this work in 1882 are greatly emphasized at this time. "With progress so rapid and information so diffused, it is extremely difficult alike for the practitioner, the teacher and the student to keep pace"—much more so in 1894 than it was in 1882. As an evidence of this rapid progress, note the following quotation from the remarks concerning Behring's work with antitoxin: "Recently experiments have been made by Behring and

Kitasato, Brieger and Fränkel, and Löeffler, as to the possibility of weakening the action of the bacillus (of diphtheria) by various methods, and so conferring immunity against its further action; but, so far, no results have been obtained which are of use in human therapeutics." And yet, even before the book containing this statement has left the hands of its publishers, the wonderful success that is attending the use of Behring's discovery is attracting the attention and arousing the enthusiasm of the whole world, so rapidly does science progress in this age when once the right track is struck. We might safely assert that no work, which would require much time in passing through the hands of the printers and binders, would be free from the omission of some important advance.

The title of the work, "A Dictionary of Medicine," is rather misleading, as one would suppose it to contain all the terms used in medicine, while such is not the case. It is rather a dictionary of diseases, in which the several diseases are taken up in alphabetical order and their etiology, pathology, symptoms, diagnosis, prognosis and treatment discussed by various well-known authorities, each of whom is peculiarly fitted to write upon the subject allotted him. Each article has its author's name attached. The former edition had no less than 162 contributors and this edition has 50 additional, who have been selected to write upon new subjects or to supply the place of former contributors who have died. The high standing of these gentlemen and their recognized positions as authorities add immensely to the reliability of the work and ensures

the reader that it is up to date, and that the opinions expressed represent the most accepted teaching of the day.

The publishers have left nothing to be desired in the typography and general mechanism of the volumes, and the work is destined to retain its position as a most valuable reference book—a resumé of medical practice, condensed sufficiently for quick reference, but not so brief as to take from its value as a guide.

Sexual Neurasthenia—[Nervous Exhaustion]. Its Hygiene, Causes, Symptoms and Treatment. With a Chapter on Diet for the Nervous. By George M. Beard, A.M., M.D., Formerly Lecturer on Nervous Diseases University City of New York, etc., etc. Edited, with Notes and Additions, by A. D. Rockwell, A.M., M.D., Formerly Professor in the New York Post-Graduate School, etc. Fourth Edition—with Formulas. E. B. Treat, New York, 1895. Price \$2.75.

It will be remembered that this work was first edited by Dr. Rockwell from the posthumous manuscript of Dr. Beard, and but little more was done than to arrange the papers and fill up a gap or two where the continuity was broken. In the present revision Dr. Rockwell has added a chapter on Sexual Erethism. The chapters on Symptomatology and Treatment are full and clear and will prove helpful in a large degree to any who may be called upon to treat this most distressing affliction.

The Johns Hopkins Reports. Report in Surgery. II. The Johns Hopkins Press. Baltimore, Md., 1894.

This report is the result of operations for the cure of cancer of the breast performed at the Johns Hopkins Hospital, from June, 1889, to January, 1894, by Dr. William S. Halsted. In a series of fifty operations there have been recurrence in only 6 per cent., with, however, regnary recurrence in about 15 per cent. more.



James Henry Tuttle
Esquire Haywood

Obituary.

EDMUND BURKE HAYWOOD,
A.M., M.D., LL.D.

A Memorial Address, read before the
Raleigh Academy of Medicine,
April 28, 1894.

BY W. I. ROYSTER, M.D.

[Published by order of the Academy.]

MR. PRESIDENT :—It is eminently proper that the Raleigh Academy of Medicine should commemorate the life, character and services of Dr. E. Burke Haywood, and, in view of the personal relations in which he stood to me as preceptor, honored associate and friend, it was a graceful act on the part of the Academy to assign to me the duty of preparing a memorial of our deceased brother.

Grateful for the honor conferred upon me and for the delicacy of the feeling which prompted the choice, yet, knowing that the selection was not the best that might have been made, I hesitated to accept the duty. I was reluctant only because I felt, in all seriousness, that my unpracticed pen was not fitted to perform the service in a manner worthy of the subject. But I desire to do honor to the memory of one I loved, and I am not unmindful of the claims of gratitude to one whose friendship to me was, for more than a quarter of a century, one of my most cherished possessions; and feeling that I should be recreant to my duty by declining the part allotted to me, I yield to the wishes of the Academy.

The biography of an individual

usually includes some account of the lives of his ancestors, and this is not without sufficient reason, for it cannot be denied that heredity and environment are important factors in the formation of character. I purpose to give in the following sketch some facts in the lives of distinguished representatives of the Haywood family in each generation, and shall not fail, I think, to demonstrate the bearing of these facts on the main object of this memorial. This sketch of his ancestors, extracted from published records, will serve to show that Dr. Haywood was the descendant of men who, by superior mental endowments and force of character, rose to eminence in their own days, and whose name and fame the history of North Carolina has transmitted to our times. Further, I shall show that Dr. Haywood worthily bore the honors descending to him as a legacy from his distinguished ancestors.

The Haywood family, coming originally from the Parish of Bolton-en-le-Moors, County of Lancaster, England, has occupied a prominent place in the history of North Carolina from the earliest Colonial times to the present day. The founder of the family in North Carolina was John Haywood, the great-grand-father of Dr. E. Burke Haywood. He was a man of mark. Together with Edward Mosely he was the agent of the Earl of Granville in laying off and selling the lands of that nobleman in North Carolina. Under the Colonial Government he was Treasurer of the northern counties. A first cousin of his, also bearing the

name of John Haywood, was the ablest member of the legal profession in this State. He was Attorney-General from 1791 to 1794, when he was raised to the Supreme Court bench. This position he resigned in 1804. Some years later he removed to Tennessee and made that State his home. Here he soon attained the same eminence which he had reached in his native State, becoming a Judge of the Supreme Court. He was the author of a "Manual of the Laws of North Carolina," "Haywood's Justice," "Haywood's Reports," and of a history of Tennessee.

As showing the esteem in which this representative of the family was held, I may be permitted to quote the words of Chief-Justice Henderson, who, in one of his decisions, says: "I disparage neither the living nor the dead when I say that an abler man than John Haywood never appeared at the bar nor sat on the bench of North Carolina."

William Haywood, son of the first-mentioned John Haywood and grandfather of Dr. E. Burke Haywood, occupied many responsible positions in military and in civil life. In 1765 he was Colonel of the troops in the county of Edgecombe. In 1775 he was Chairman of the Committee of Safety for the same county. He was a member of the State Congress held at Halifax in the spring of 1776, and of that which convened in November of the same year and which adopted the Constitution. He was a member of the committee which framed that instrument. In 1776 he was made one of the counsellors of State.

John Haywood, son of William Haywood and father of Dr. E. Burke

Haywood, was highly esteemed for his ability and his integrity. He was Treasurer of the State from 1787 to 1827, and was the first Mayor of the city of Raleigh. He was the first vestryman selected for Christ church, Raleigh. In 1808 the Legislature bestowed his name on the newly-formed county since known as Haywood county, and the town of Haywood was also named in his honor. He married Miss Eliza Eagles Williams, daughter of Col. John Pugh Williams, a distinguished citizen of North Carolina during the Revolutionary War. He was Captain of the State Troops of Edenton District in 1776, and was commissioned Colonel of the 9th Regiment of the Continental Line in November, 1776. His brother, Hon. Benjamin Williams, of Moore county, was a member of Congress from 1793 to 1795, and was elected Governor of North Carolina in 1799. He was re-elected twice consecutively thereafter and once again in 1807.

Edmund Burke Haywood, A.M., M.D., LL.D., was born in the city of Raleigh, North Carolina, on the 13th day of January, 1825, and died in the city of Raleigh, North Carolina, on the 18th day of January, 1894. In these days of unrest and frequent changes, it may be interesting to note that he died in the house in which he was born. This house was built by his father in the centre of an entire city-square, purchased by him at the first sale of lots in Raleigh, immediately after the city was laid off by the commissioners appointed by the Legislature to select a site for the State Capital, and it has been the residence of the family uninterruptedly from the day of its erection to the present time.

At the tender age of seven years the subject of this sketch was deprived by death of a mother's love and care. After this sad event his elder sister Eliza took the motherless child to her heart and lavished on him the whole wealth of her affectionate nature. She was his companion, guide and teacher. Eliza Eagles Haywood was a remarkable woman. Her intellect was of the very highest order. In person she was beautiful and graceful. Her manners were pleasing and her disposition was amiable. Highly educated, cultured and refined, she was, in her youth, the chief ornament and the leader of the social circle in which she moved. Refusing many brilliant proposals, she remained unmarried and devoted her life to the training of her young brother. Fortunate was it for him that she possessed all the qualities necessary to fit her for the duties she assumed, for it cannot be doubted that she influenced, to a great degree, the development of his character.

Want of space forbids more than a reference to his two distinguished brothers, Dr. Fabius J. Haywood, the eminent physician, and George W. Haywood, the well-known Attorney and Counsellor-at-Law.

Dr. E. Burke Haywood received his early education at the Raleigh Male Academy under the Rev. Dr. McPheeters, Silas Bigelow and J. M. Lovejoy, the teachers in charge successively of that widely known school. At the age of eighteen he entered the University of North Carolina in the celebrated class of which Gen. Johnston Pettigrew, Senator John Pool and Senator M. W. Ransom were members. He attained first distinction, but was forced by ill-health to relinquish his

studies before graduation. He began the study of medicine under his brother, Dr. F. J. Haywood, then the leading practitioner of Raleigh. He received his degree of M.D. from the University of Pennsylvania in 1849. Immediately thereafter he began the practice of medicine in his native city. The following year he became a member of the North Carolina Medical Society.

In November, 1850, Dr. Haywood married Miss Lucy A. Williams, daughter of Alfred Williams, of Raleigh, a man of singular purity and beauty of character, whose name in the business world is a synonym of integrity, and who, perhaps, has never had an enemy.

On the breaking out of the war in 1861 Dr. Haywood abandoned his practice, joined the Raleigh Light Infantry and was elected Surgeon of that command. In May, 1861, he organized at Raleigh the first Military Hospital established in North Carolina during the war. Immediately thereafter he was sent by Governor Ellis to gain important information by inspecting the military hospitals on Morris Island, South Carolina. On May 16th, 1861, he was appointed Surgeon of the North Carolina State Troops, and placed in charge of the Fair Grounds Hospital. At the same time he was appointed by the Governor Surgeon of the Military Post of Raleigh, North Carolina, with the assimilated rank of Major. On the 15th day of June, 1861, he was appointed President of a board of surgeons to examine applicants for the position of Surgeon to the North Carolina Troops. Dr. Haywood remained in the military service of the State until December 4th, 1862, when he was appointed by the Secretary of

War Surgeon of the Provisional Army of the Confederate States, to rank as such from August 1st, 1862. He was placed in charge of the Pettigrew Hospital, Raleigh, North Carolina, which position he retained until the close of the war. During the seven days battles around Richmond, he was on duty at Seabrooks Hospital in that city. In this year he was appointed President of the Medical Board at Raleigh for granting furloughs and discharges from the Confederate States Army, and was also appointed Acting Medical Director in the Confederate States Army for the Department of North Carolina.

When the war ended there were still numbers of sick and wounded Confederate soldiers under his care in Pettigrew Hospital. To these he continued to give his unremitting attention until they were restored to health and able to return to their homes. The last one was discharged on the 4th of July, 1865. Dr. Haywood then resumed his civil practice.

In June, 1866, he was elected Vice-President of the North Carolina Medical Society and also a member of the State Board of Examiners for six years and served as examiner in surgery. In 1868 he was made President of the Medical Society, and in this year the University of North Carolina conferred on him the honorary degree of A.M. In 1870 he was one of the organizers of the Raleigh Academy of Medicine. In 1871 he was appointed by the Medical Society a member of the committee on publication of its transactions and held the same position in 1872 and in 1873. In 1872 he was elected Secretary of the Raleigh Academy of Medicine, and

was appointed by the Medical Society a member of the board to examine applicants for license to practice pharmacy.

Grateful acknowledgement is due to Dr. Haywood for an important service he rendered in this year to the profession in North Carolina. In the case—*State vs. George Dollar*, tried January, 1872, at Special Term of Wake Superior Court, Dr. Haywood was summoned, not as a witness to any fact, but as a professional expert. His fee for expert testimony was not allowed and the judge was of opinion that he was not entitled to any compensation as an expert, and directed the ordinary fee for attendance as a witness to be paid. From this judgment Dr. Haywood appealed, and the Supreme Court decided in his favor, thereby establishing the right for which he contended, that "one summoned as an expert in a criminal action is entitled to extra compensation."

In 1873 he served as a member of the Board of Censors of the Medical Society, and in March of that year was elected a corresponding member of the Gynecological Society of Boston, Massachusetts. In 1874 he was elected President of the Raleigh Academy of Medicine. In 1875 he was a delegate to the annual session of the Association of the Medical Officers of the Confederate Army and Navy, which convened in Richmond, Va. On the 16th of March, 1866, he was appointed a member of the Board of Directors of the North Carolina Insane Asylum, and in 1875 he was elected President of the Board. In 1889 he resigned that position and was appointed by the Governor Chairman of the Board of Public Charities. He was a dele-

gate from the North Carolina Medical Society to the American Medical Association in the years 1869, '70, '75 and '76, and was also a delegate to the International Medical Congress held at Philadelphia, in September, 1876, and again a delegate to that body at the session held at Washington City in September, 1887. In 1889 he was appointed by the Governor to represent the State of North Carolina in the National Quarantine Conference held at Montgomery, Ala. In June, 1889, the University of North Carolina conferred on him the degree of LL.D. This is the first instance in which our University conferred this degree on a physician in North Carolina.

He was appointed by the Governor a delegate to the 17th National Conference of Charities and Corrections, held at Baltimore in May, 1890, and again to the 18th session of that body, held at Indianapolis in May, 1891. In this year he declined a re-election to the presidency of the Board of Charities, but continued to serve as a member of the Board.

The position which Dr. Haywood occupied for so many years as President of the Board of Directors of the North Carolina Insane Asylum was to him a sacred trust. His interest in the insane was deep and abiding, and his labors for the welfare of this unfortunate class were indefatigable. To him belongs the credit of giving to the Legislature of 1875 information which induced that body to reject as unsuitable an old hospital building proposed as an asylum for the colored insane. At his suggestion the commission was appointed which selected the site near Goldsboro upon which the new Asylum was built. His influence was also ex-

erted in favor of the establishment of the Western Insane Asylum.

He was examiner for several of the leading life insurance companies, and in two companies held the position of Medical Referee for North Carolina. With his long experience, his great skill in physical diagnosis and the care he conscientiously bestowed on every case, he was a model of all that is excellent in this branch of professional work.

He was President of the Raleigh Academy of Medicine for the year 1893. He was appointed by the Governor one of the delegates to represent the State of North Carolina in the Pan-American Medical Congress, and in that capacity he attended the session of that body at Washington City in September, 1893.

At the time of his death he was physician to the Peace Institute and one of the physicians to the North Carolina Institution for the Deaf and Dumb and the Blind.

This meagre record—this epitome easily crowded into a few sentences—a mere catalogue of positions held, of things done, of honors received, can give no adequate idea of the long, laborious and useful life of Dr. Haywood. This idea we can comprehend only when we grasp, in all its fullness, the real meaning of these bare statements; when we see with the mind's eye the self sacrifice, the unremitting labor of the busy days, the anxiety of the long nights spent in toil for his fellow-men, and the ever-present sense of responsibility that made up this long professional life; above all, only when we clearly perceive the determining spiritual force that gave the

moral quality to the actions we so justly admire.

The life of every man with an earnest purpose, however limited his sphere of action, if truly told, is a lesson and an inspiration. Surely, therefore, it cannot be unprofitable to pause and contemplate the character of this man who occupied places of trust, bore on his shoulders the burdens of many, planned much for the good of his fellows, who healed the sick, who spent his life in doing good and died beloved and lamented.

Dr. Haywood was the most highly honored doctor of medicine in North Carolina. As a physician and as a surgeon he stood at the head of our profession. This position he did not reach by a happy combination of fortuitous circumstances. The fame and the honors he received came to him as a reward due to his ability, his learning and his character. His success was achieved, his reputation was earned. Granting the superior mental endowments he possessed, the path he so untiringly trod could lead only to the success he attained.

His preparation for his life-work was thorough. As a child, he was trained to habits of industry, order and obedience. He laid the solid foundation of a broad and liberal education before he attempted to rear the superstructure of professional learning. His medical training was the best that could be obtained in that day. He loved books, and to the day of his death he was a diligent student. He entered into the practice of medicine with enthusiasm controlled by good judgment, and with energy directed by methodical habits.

He desired success and strove to

attain it, but the gratification of self-love was not the motive of his life. His ambition was of a nobler sort. Those who knew him well knew that he acknowledged the moral responsibility involved in the possession of talents and opportunities. To him success was a means and not an end. Failure to attain it, possible only by a mis-use of his powers, would have implied neglect of duty.

He was well read in medical literature, and was ever abreast of the foremost in the progress of medical science. His studies were prosecuted carefully and systematically. Whatever he learned his memory retained with great tenacity, and his knowledge was always at his command. While he was not wanting in any qualification of an able physician, his preëminence was, perhaps, chiefly owing to his excellent judgment and his surpassing skill in diagnosis.

He possessed every endowment, both of mind and body, necessary to the highest attainments in the art of surgery. He had a cool head, a keen eye and a steady hand. He was fertile in resources and never lost his self-possession in emergencies. He was conservative in temperament. Neither desire for notoriety nor exuberant enthusiasm ever induced him to advise any surgical interference that his judgment did not approve, nor did fear of adverse criticism ever deter him from performing any surgical operation, if, in his opinion, it was necessary to the welfare of the patient. He maintained his calmness and self-control under all circumstances. He performed a Cæsarean section or ligated the external iliac artery with a hand as steady and a mind as imper-

turbable as when he dressed the simplest wound. He had a larger surgical practice than usually falls to the lot of a general practitioner of medicine in a city no larger than ours. His four years of service as a surgeon in the Confederate Army gave him an abundant experience, and in civil practice his reputation brought him many patients from a distance. He performed many important surgical operations. An account of those not already known to the profession would be interesting and instructive, but is forbidden by the limits of this address. No surgeon ever obtained better results, whether we regard the immediate effects of his operations or consider their remote consequences. His manner of operating could not have been described as brilliant—a term which, as usually employed, would have been by no means acceptable to one so averse as was Dr. Haywood to everything that was showy or theatrical. He knew his surgical anatomy well and performed his operations carefully and skilfully. He was cautious, but not timid; bold, but not rash. In every important case he thoroughly prepared the patient for the operation, and his after-treatment was such as could be given only by one who was an able physician as well as a skilful surgeon. To this may be attributed much of his success. In connection with his surgical work it is worthy of remark that his eye-sight was in no wise impaired by age. He had nearly completed his three-score years and ten, and if his natural strength was somewhat abated, his eye was not dim.

Dr. Haywood was an admirable consultant. He was punctual in keeping his engagements, courteous in his de-

meanor, kind and considerate of the feelings of his brother practitioner. He was helpful to the attending physician, not only because his knowledge, skill and experience enabled him so often to make a correct diagnosis in an obscure case or to decide a doubtful point in therapeutics, but because with ready sympathy he encouraged and sustained his professional brother, and when their united efforts were not crowned with success, he willingly assumed his full share of the responsibility. He was not contentious or disputatious, and never allowed a trifling matter to become a source of disagreement in consultation, but when compelled, by a difference of opinion on a point of vital importance, to dissent from the views of the attending physician, he expressed himself with the utmost courtesy, and if, when necessary, he urged his own opinion with the earnestness befitting so serious a matter, he never failed to manifest a respect proper for one who conscientiously held a contrary opinion. He had a thorough knowledge of the code of medical ethics, and regulated his conduct by its spirit as well as by its letter.

He was rather reserved to strangers, and by no means communicative to mere acquaintances, but to his intimate friends he was the most charming of companions. His conversation, always instructive, never dull, was enlivened by a dry humor of a most delicious flavor. His features were noble and his bearing dignified. His countenance was expressive of firmness and decision, courage and intelligence, and only a superficial observer would have failed to see depicted therein the finer and softer traits of character. His

friends knew that he had a most affectionate nature—that he was as tender as he was brave. He had a sympathetic heart and it never grew hard or indifferent to the sufferings of his fellow-men. His sympathy grew by exercise, and it is no imputation of weakness or disparagement of his manhood to say that his tears, which his own suffering hardly could have wrung from him, sometimes flowed at the sight of agony he was impotent to relieve.

He was a conscientious man and one who thought deeply on the great problems of life. He had determined in his own mind the ethical laws by which his conduct should be regulated, and so true was he to his convictions, so faithful to his ideals, that neither pleasure nor profit could seduce, nor fear drive him from the path of duty. He found no difficulty in reconciling a belief in the doctrines of the Christian religion with perfect intellectual liberty. He was a devout believer and a man of unaffected piety. He was singularly free from the fears that disturb the peace of most mortals.

The following words of Marcus Aurelius, concerning his teacher, Maximus, the Stoic, give us, so far as they go, a surprisingly exact description of the character and demeanor of Dr. E. Burke Haywood :

"I observed that everybody believed that he thought as he spoke, and that in all that he did he never had any bad intention; and he never showed amazement and surprise, and was never in a hurry, and never put off doing a thing, nor was perplexed nor dejected, nor did he ever laugh to disguise his vexation, nor, on the other hand, was he ever passionate or suspicious. He was

accustomed to do acts of beneficence, and was ready to forgive, and was free from all falsehood; and he presented the appearance of a man who could not be diverted from right, rather than of a man who had been improved. I observed, too, that no man could ever think that he was despised by him or ever venture to think himself a better man. He had also the art of being humorous in an agreeable way."

To portray the sweetness as well as the nobility of Dr. Haywood's character, we must needs invade the privacy of his home, where he was no longer the man of affairs, the distinguished physician, the honored citizen, but the affectionate father, the husband loving and beloved. Suffice it to say that in these relations his character showed its most beautiful aspect, and that here, where he was known best, he was loved most. A nearer view would be a violation of good taste. The respect due to sorrows into which we cannot enter, bids us turn aside and go softly, with bowed heads and averted gaze.

It was Dr. Haywood's intention to retire from the practice of medicine on his sixty-ninth birth-day, and to devote his declining years to studious pursuits for which his unimpaired mental vigor, with his accumulated stores of knowledge, so well fitted him, and to a life of calm enjoyment in the bosom of his family, so congenial to his affectionate nature, but it was determined otherwise. Providence decreed that his life should end with his life-work. On his birth-day, Saturday, January 13, 1894, he visited his patients; on Sunday, the 14th, he was stricken with mortal sickness, and on Thursday, the 18th, he died:

His departure left no incompleteness

in his life. He was not an actor recalled before his part was played. His life was symmetrical. His work was done, and he was ready to receive his reward.

And now the last scene! "The end crowns the work." He, whose watchword had been duty, whose life had been ordered exactly in accordance with the motto he so often repeated, "Do right and fear not," met death face to face with the calmness of

a brave man, with the resignation and the hope of a Christian. In that supreme moment his concern was for those weeping around him and he strove to comfort them. His last words, uttered with painful effort and failing breath, were: "Do not be unhappy about me; I am not afraid to die; it is all right on the other side."

What more shall we say? He passed over to "the other side," and entered into rest.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From January 10, 1895, to January 23, 1895:

Smith, Col. Joseph R., Assistant Surgeon General, will be relieved from duty as Medical Director Department of the East, to take effect about February 5, 1895, and will proceed to his home, where he is authorized to await retirement.

Tilton, Col. Henry R., Deputy Surgeon General, is relieved from duty at Fort Omaha, Nebraska, and will report in person to the Commanding General Department of Dakota, for duty as Medical Director of that Department, relieving Col. Charles C. Byrne, Assistant Surgeon General. Col. Byrne, on being thus relieved, will report to the Commanding General Department of the East for duty as Medical Director of that Department.

Lauderdale, Major John V., Surgeon, will be relieved from duty in the Department of the East, to take effect upon the expiration of his present leave of absence, and will then report for duty at Fort Omaha, Nebraska.

Heyl, 1st Lieut., Ashton B., Assistant Surgeon, is relieved from duty at Co-

lumbus Barracks, Ohio, and ordered to Fort Thomas, Kentucky, for duty.

THE NAVY.

Two weeks ending January 26, 1895:

Waggener, Jas. R., Surgeon, placed on waiting orders.

Curtis, L. W., P. A. Surgeon, detached from Naval Hospital, Chelsea, Mass., and placed on waiting orders.

Stone, L. H., P. A. Surgeon, ordered to the U. S. S. "Alliance" January 22, 1895.

Ayers, J. G., ordered to the U. S. S. "Olympia."

Pigott, M. R., P. A. Surgeon, ordered to the U. S. S. "Olympia."

Norton, O. D., P. A. Surgeon, ordered to Naval Laboratory and Department of Instruction and ordered to the Naval Hospital, Brooklyn, New York.

Hope, J. S., Assistant Surgeon, ordered to examination preliminary to promotion March 4, 1895.

Official list of the changes of station and duties of medical officers of the United States Marine Hospital Service, for the fifteen days ended January 15, 1895.

Carter, H. R., Surgeon, to assume temporary command of Cape Charles Quarantine, January 7th, 1895. Re-

lieved from such duty January 14th, 1895.

Perry, T. B., P. A. Surgeon, to proceed to Delaware Breakwater Quarantine Station for temporary duty and to rejoin station (Cape Charles Quarantine)

upon Completion of same, January 14th, 1895.

Wertenbaker, P. A. Surgeon, granted leave of absence for seven days January 3d, 1895.

Miscellaneous Items.

We learn that steps are being taken to raise a monument to the memory of the late Prof. W. C. Dabney, of the University of Virginia.

Professor Alfred L. Loomis died at his home in New York on the 23d of January, having just entered his 64th year. The cause of his death was pneumonia of only a few day's duration.

The Weather Bureau of the Department of Agriculture have issued a circular letter announcing that the Secretary of Agriculture will undertake the systematic investigation of the climate in relation to its influence on health and disease. It is hoped to make the investigation of interest and value to all, but especially to the medical profession, and to those seeking to restore their health by change of climate. He asks the hearty coöperation of the various boards of health, and of all physicians who may feel an interest in the work. Coöperation will consist of sending vital statistics from the various localities, and no remuneration can be offered other than sending to all who make these reports, the publications of the Bureau bearing upon climatology and its relation to disease. Full information can be had from Mark W. Harrington, chief of the Bureau, Washington, D. C.

Some one has found out now that milk-tickets are frequent carriers of contagion True, no doubt.

Messrs. Frederick Stearns & Co. have issued a neat pamphlet on Kola. It is illustrated and gives the history, habitat, botany, native uses and the physiological action of kola.

The following is the health report of Wilmington for January, 1895:

	Whites.	Col.	Total.
Population.....	9,000	13,000	22,000
Deaths.....	17	20	37
Annual death rate rep.	22.7	18.5	20.2

A bill has been introduced in Congress to place antitoxin on the free list. It should be passed at once.

The preparation of antitoxin was begun in Boston by the inoculation, January 25th, of five horses, at Gallop's Island.

DR. CHAS. DAY, M. R. C. S., etc., 79 St. Mark's Square, West Hackney, London, writes, on January 17th, 1893: I have prescribed your preparation, IODIA, with very satisfactory results. Its power of arresting discharges was very manifest in a case of leucorrhœa, and another of otorrhœa. In the latter case, the result of scarlet fever in early life, the discharge had existed for many years. The patient could distinctly feel the action of the IODIA on the part, and the discharge gradually dried up.

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Original Communications.

TOTAL EXTIRPATION OF THE UTERUS FOR FIBROMA COMPLICATED BY PREGNANCY.*

By J A. WATSON, M.D., Asheville, N. C.

In reporting the following case I will not attempt to give any formulated rules for the surgical treatment of tumors of the uterus. The relation in which the tumor stands to the uterus and the complications which surround each case must necessarily make each a law unto itself subject only to the general principles of conservatism.

If the nature of the case is such that the tumor can be safely removed and the uterus spared, and it often can be in uncomplicated cases of the class I now report, then that should be the first consideration. If, on the other hand, the uterus must be sacrificed, I unhesitatingly recommend total extirpation, for the reason that it meets more perfectly the two cardinal requirements of modern abdominal surgery—asepsis and drainage—than does any

of the other methods necessitating its destruction.

I submit to you for your discussion the treatment I adopted in the following case of fibro-myoma complicated by pregnancy. I first saw Mrs. P. in consultation with the late Dr. Neilson. She was a pale, thin, unhealthy-looking woman, 31 years of age, had been married six months and was four months pregnant. Her heart's action was feeble, her respiration was difficult and rapid. Persistent nausea and loss of sleep, due to pain, had exhausted her strength so that she was compelled to keep her bed. She had suffered from menorrhagia, rectal and vesical irritation for two years past; but as her general health continued good she had married, conception had followed and from this occurrence dates her serious trouble. The influx of blood into the uterine

*Read before the Buncombe County Medical Society, January 7, 1895.

vessels incident to gestation had caused the tumor to develop very rapidly and the usual features of a normal pregnancy were immersed into the clinical history of a fibro-myoma. Examination per vaginam showed a solid immovable tumor of the uterus. It had filled the pelvic cavity and crowded the cervix up under the pubes. The rectum was flattened out like a ribbon and the hemorrhoidal vessels greatly congested. Through the thin abdominal walls the tumor could be distinctly outlined. Lying on top of the solid tumor, and slightly to the left of the median line, was a soft, fluctuating mass which was recognized as the foetal sack. It was evident that an abdominal section was the only hope of relief. She was removed to the Mission Hospital, and, after being carefully prepared, the abdomen was opened, the incision extending from the pubes to two inches above the navel. The tumor, which proved to weigh eight pounds, lay freely in the peritoneal cavity. It was attached to the posterior wall of the uterus near the fundus by a short, broad pedicle and received all of its blood-supply through this channel. It had developed rapidly in the direction of least resistance, which was upwards and forward, and, as the pedicle was very short, it had literally lifted the uterus from the pelvic cavity and spread its walls out over its own broad, smooth surface. The uterine walls were abnormally thin. The foetus could be felt through them. It was dead.

In uncomplicated cases of fibromyomata attached to the uterus by a short, broad pedicle, Schröder advises that an elastic ligature be passed around the supra-vaginal portion of

the cervix uteri to control hemorrhage and then to cut the pedicle off smooth with the uterus, and if it is too broad to bring the edges together, to hollow out the uterine walls till they can be made to approximate. The wound is then securely sutured and the peritoneum neatly stitched over it. The elastic ligature is now removed and bleeding watched for. This is a conservative method, and should be followed in uncomplicated cases, but to pass a rubber ligature around the supra-vaginal portion of the cervix uteri, when the fundus of the uterus contains a dead foetus and constrict it sufficiently to control hemorrhage, would be to invite a miscarriage at a very undesirable time; besides it would be impracticable to hollow out thin uterine walls without opening the uterine cavity and turning loose its septic contents on the peritoneum.

I decided on total extirpation. I passed a rubber ligature around the sulcus-like pedicle, tightened it and severed the connection between the tumor and the uterus; there was considerable hemorrhage, but this was promptly controlled by clamp forceps. The tumor was now lifted from the abdominal cavity and the patient was changed to the Trendelenburg posture. I then made a transverse incision through the peritoneum, covering the anterior surface of the uterus one and one-half inches above the bladder, and a similar transverse incision on the posterior wall of the uterus. The peritoneal flap and bladder were pushed forward from the uterus until the cervix was reached. I now cut directly into the vagina, separating it from the cervix by a semi-circular incision stopping short of the uterine

artery anteriorly. The posterior peritoneal flap and rectum were now separated and the vagina and cervix similarly treated posteriorly. Clamps were now passed by an assistant up through the vagina, securing the uterine arteries and the lower portion of the broad ligaments well in their grasp. The ovarian arteries and the broad ligaments down to a junction with the clamps were now double ligatured with heavy catgut and the uterus cut free from its attachments. The abdominal cavity was flushed and then sponged dry and the vagina loosely packed from above with iodoform gauze so applied as to drain the subperitoneal space.

The ligatures on the ovarian arteries and broad ligaments were cut short and the edges of the peritoneal flaps,

which had been separated from the anterior and posterior surface of the uterus were brought together by continuous sutures of catgut, thus shutting off the peritoneal cavity from the vagina below. The abdominal incision was now closed and the patient placed in bed. The clamps were removed at the end of thirty hours. Catheterization of the bladder was necessary for one week, but with this exception she made a smooth and uninterrupted recovery and left the Hospital cured at the end of the fourth week.

I do not advise the use of clamps in abdominal hysterectomy and used them in this case as an experiment, it being necessary to finish the operation in the shortest possible time on account of the extreme weakness of the heart under the anæsthetic.

THE INDICATIONS AND NATURE OF TREATMENT IN SEVERE ABDOMINAL INJURIES AND INTRA-ABDOMINAL HEMORRHAGES UNACCOMPANIED BY EXTERNAL EVIDENCE OF VIOLENCE.*

By JOHN B. DEAVER, M.D., Professor of Surgery Philadelphia Polyclinic;
Assistant Professor of Surgical Anatomy University of Pennsylvania; etc., etc.

Contrary to our custom, which has been for the orator on this occasion to present an address upon the advances made in surgery during the preceding year, I would beg the privilege of our Honorable President and Fellows to substitute therefor a paper upon a subject that must appeal to every practical surgeon, namely, "The Indications and Nature of Treatment in

Severe Abdominal Injuries and Intra-abdominal Hemorrhage Unaccompanied by External Evidence of Violence."

Every surgeon has undoubtedly at some time in his experience, either in private or hospital practice, met with cases coming under the class covered by the title of this paper. These are cases in which the history and general condition of the patient give the impression that there is a serious lesion

*Read before the Philadelphia Academy of Surgery, January 7, 1895.

within the abdomen, and yet, upon examination, we find total absence or only slight evidences of injury. The tendency, I fear, with many, is to treat these patients tentatively, only to be awakened at the autopsy to the fact that a rupture or a tear existed in the abdominal cavity, which, by early radical operation, could have been relieved.

The mortality in these cases is appalling; references to the literature of the subject will amply bear out this statement, which is readily accounted for by the nature of the injuries. Where the lesion is of the liver or spleen, if the patient does not die of shock or hemorrhage, a violent peritonitis supervenes to which he shortly succumbs. If the liver, spleen or kidneys are involved, death from hemorrhage may ensue in a very short time. Should the stomach, intestine or bladder be ruptured and their contents poured into the peritoneal cavity, death from peritonitis is the result. In rupture of the mesentery the danger is from hemorrhage, yet, when the opening in the mesentery is small, a clot may form sufficiently large to control the bleeding. Should death occur under these circumstances it would be the result of peritonitis caused by the free blood in the peritoneal cavity. I report a case of this character where recovery followed immediate operation. In ruptured intra-uterine pregnancy death is due either to hemorrhage or peritonitis.

The usual history of these cases, with the exception of extra-uterine pregnancy, is that the patient has received a direct injury to the abdomen, which is found to be unaccompanied by external evidence. These injuries

may result from railroad accidents, from being caught between shifting cars, or from blows upon the abdomen received in various ways.

This class of injuries is quite common in military surgery, more so in the past when spherical balls were used and only a low velocity attained. A majority were supposed to be caused by the violence of the wind displaced by the passing ball, but we now know that they were due to the impact of the balls almost entirely spent.

Two cases which illustrate this occurred at the siege of Sebastopol. In neither did the clothing or the abdominal walls show any signs of injury, but in both the liver and spleen were comminuted to a pulp and the intestines extensively lacerated (Mr. Hulke, *Lancet*, December 31, 1892).

As yet we have no reports from surgeons of the armies engaged in the present strife between Japan and China, but it will be of great interest to read the records of such cases. We can expect, I think, a very full and detailed account from the Japanese surgeons. We have all applauded the work of some brilliant individuals of the Japanese profession, and, in fact, we must assign to Japan in medicine the same standing that she has taken in other walks of civilized life, and which she has demonstrated she can hold.

The most prominent symptom is pain, which is accompanied by shock, the degree of which is dependent upon the extent of injury and the temperament of the individual.

I might say here that temperament and nationality have a strong bearing in the production of shock. Persons of a highly nervous temperament suffer more from shock than do phlegmatic

individuals. For example, Americans are far more liable to suffer a severe degree of shock following injuries or operations than are the Germans.

The pain is peculiar and difficult to describe, but is readily recognized by one who has seen many of these cases and by the patient himself. It is not that of ordinary intra-abdominal affections, but is described by the patient as if something had given way or ruptured, and is usually accompanied by a consciousness of impending death. It is usually accompanied with tenderness, which will be more or less localized, unless the ensuing peritonitis be general. In the early stages of the injury, when shock is most profound, it may not be so pronounced, and if large doses of opium be administered it may be masked throughout the course of the trouble.

When vomiting is present it is usually associated with pain. Rarely does the vomited matter contain blood.

There is often seen a characteristic rigidity of the abdominal walls, which is due to intra-abdominal irritation. I have seen this so marked as to recall to mind the checker-board appearance of the normal abdominal walls as represented in the pictures of the early artists.

In the cases I have observed consciousness has invariably been retained for varying periods of time. Restlessness is not usual in the early stages except in severe hemorrhage, but later on, when peritonitis develops, it is not an uncommon symptom.

The pulse and temperature vary according to the degree of shock. The former is weak and running, varying from 100 to 160, and the temperature subnormal. If reaction takes place

the pulse becomes stronger and less frequent, and the temperature reaches the normal line. After reaction peritonitis is invariably the rule, and is accompanied by an accelerated and a high-tension pulse. The temperature under these circumstances is unreliable, as it does not correspond to the degree of inflammation or septic infection. A high temperature with a slow pulse is less significant than a rapid pulse with a low temperature. In cases of septic peritonitis, where autopsy revealed a belly cavity full of foul pus, I have seen the temperature run a normal course throughout the disease.

The part the sympathetic system of nerves, which has its largest distribution in the abdominal cavity, may play in injury to the abdomen is important in considering the differential diagnosis between the simple contusion and contusion accompanied by visceral lesion. In the former the absence of the severe and characteristic pain, of constant and persistent vomiting, of the anxious expression and presentment of impending death, and of any evidence of loss of blood, associated with the occasional presence of suddenly developed meteorism, will usually be sufficient to establish the differential diagnosis. This condition of meteorism is due to paralysis of the muscular coat of the bowel consequent upon the concussion of the plexuses. There are cases, however, where it is very difficult to say definitely whether there be a visceral complication or not. Under these circumstances one can only wait for a comparatively few hours, when, if improvement is not apparent, the operative course is to be pursued. When the solid viscera are

the seat of injury hemorrhage will be the main source of anxiety. The pain and the exsanguination give the clue. If the patient should react, which is unusual, unless the kidney is the injured organ, we will find, in addition, dullness on percussion in the flank. Rectal or vaginal examination may afford aid in determining the presence of a collection of blood in the pelvis. The solid organs suffer most from external violence on account of their fixity, density and close proximity to the bony structures. The liver is the most often injured, then the uterus, spleen and kidney, in the order named. The stomach is least often injured, there being very few such cases on record. Dr. J. W. Goff (*Medical and Surgical Reporter*, 1892), reports a case of ruptured stomach following a horse-kick of the abdomen, verified by an autopsy. The shock was profound and there was vomiting with absence of blood. The author states that he believes immediate operation would have saved the patient's life.

In the *Glasgow Medical Journal* for 1894, vol. xli., Andrews reports a case of rupture of the stomach without external evidence of violence, in which all the symptoms of a serious visceral lesion were present with the exception of vomiting. The rupture was upon the anterior wall; was about an inch long, and involved all the layers. I cite this case as one of special interest on account of the location of the tear and the absence of vomiting.

The liver is the organ most often affected because of its position beneath the ribs and against the spine, and because it is held firmly in place by strong ligaments and blood-vessels. It is most commonly ruptured on its

upper surface, generally in the right lobe, and in a majority of such cases the injury proves fatal. Dr. H. P. Loomis (*Medical Record*, January, 1893), reports a case where the patient was struck by a pole protruding from the back of a wagon, which, when the wagon turned the corner, struck him on the right side, leaving no external evidence of violence. There was a three-inch tear in the right lobe of the liver and a pint of blood in the abdominal cavity. The patient died in the street from hemorrhage before medical aid could reach him.

Mr. Battle (*London Lancet*, 1894), reports a case of rupture of the bile duct in a boy six years of age, who was run over by a hansom cab, in which there was but a slight shock without much pain or tenderness. Vomiting began early and persisted. On the fifth day slight jaundice developed. He was operated upon on the eighth day and the abdominal cavity was found filled with bile. He died on the morning of the ninth day.

Autopsy.—Liver and gall-bladder were intact, but about one-half an inch beyond the junction of the cystic and hepatic ducts the common duct was found to be torn completely through. No other injury was found.

J. E., aged 46 years, was admitted to the German Hospital on November 17th, 1893, suffering from injuries received by being struck by a locomotive. He had a compound fracture of the lower jaw, lacerated scalp wound and fracture of four ribs on the left side, with no other signs of injury. He died six hours later. Post-mortem examination revealed a hemothorax of the left side. The peritoneum was not perforated or otherwise injured,

but the peritoneal cavity was filled with blood. The spleen was completely comminuted, and the left kidney had been forced from its bed and was floating in the retro-peritoneal space. There was an extensive hemorrhage between the layers of the mesentery, and a hemorrhagic extravasation of the posterior wall of the stomach.

H. M. C., colored, aged 16 years, was admitted to the German Hospital on the evening of December 3, 1894, with the following history: While playing about some moving freight-cars he was accidentally caught between the bumpers, sustaining an injury to his abdomen. Examination upon admission failed to disclose any evidences of external injury. The introduction of the catheter drew clear urine. There was a moderate degree of shock, and the patient complained of severe pain in the abdomen and tenderness on palpation. Further investigation proved negative.

The resident surgeon, Dr. Page, not deeming the case of sufficient severity to send for me, treated the patient for shock. When I examined him, upon the following day, it was very evident from the severity of the abdominal pain and tenderness associated with very decided rigidity of the abdominal walls, that he was suffering from a serious intra-peritoneal lesion. I decided to open the abdomen at once. As soon as the peritoneal cavity was opened a large quantity of dark liquid blood escaped. The small intestines were delivered, when the cause of the lesion was found to be a ruptured mesenteric vein, the bleeding from which was arrested by the presence of a large diffused blood clot occupying the interval between the layers of the me-

sentery. To make sure that there was no other lesion, the large intestines, the stomach, the liver and the spleen were carefully examined, but with a negative result. The abdominal cavity was washed out with warm saline solution, glass drainage was introduced into the pelvis and the wound closed. Recovery was uninterrupted.

L. C., male, Italian, aged 35 years, was admitted to the German Hospital, with a history of a fall of about fifty feet, striking upon his abdomen. He was profoundly shocked and exsanguinated. The only external evidences of injury were some slight cuts on the hands and head. A diagnosis of internal hemorrhage was made, and the abdominal cavity opened up. Dark liquid blood escaped as soon as the peritoneum was opened and the source found to be the mesenteric vessels. The mesentery was torn half way across and the intestines lacerated in four places. The mesentery was united with a series of catgut ligatures. The rents in the intestines closed with the Lembertsutures. The abdominal cavity was washed out with hot saline solution and closed. He died two hours after the operation. The autopsy demonstrated several tears in the gut which had been overlooked, and several grape-skins and pieces of fig in the peritoneal cavity.

The most common form of intra-abdominal hemorrhage is that resulting from ruptured extra-uterine pregnancy. While these cases may be due to traumatism without any external evidence they are usually spontaneous. While hemorrhage from the pelvic organs of the female usually occur from a ruptured extra-uterine pregnancy, it may be due to other non-

traumatic causes. Hematosalpinx may occur independent of pregnancy, and rupture either spontaneously or from traumatism. Again, degenerated blood-vessel walls, and especially veins, may rupture under similar circumstances.

M. E., aged 24, nurse, admitted to German Hospital January 20, 1893. While lifting a heavy weight from an elevator she felt something give way in her abdomen. This was immediately followed by severe lancinating pain in the right ovarian region. She was menstruating at the time. Pelvic peritonitis promptly set in. An examination demonstrated a tumor in the right broad ligament about the size of a hen's egg. The peritonitis and tumor subsided to treatment, and she made a slow recovery. Diagnosis, pelvic hæmatocele from rupture of an engorged ovarian vein.

Hemorrhage itself is seldom the cause of death, but associated as it is with shock, the degree of which is out of all proportion to the severity of the accident, it is frequently fatal in a very short time. When the peritoneum is wounded shock is still more profound, the so-called peritoneal shock.

Hemorrhage within the peritoneum is sometimes very slight and distinctly localized, and may occur several times during the course of the illness. It may take place between the layers of the broad ligament, and soon stop from the pressure.

I report the two following cases of hemorrhage from my list of operations for ruptured extra-uterine pregnancies, as they illustrate so typically the wisdom of immediate operation:

Mrs. A. K., aged 31 years, admitted to the German Hospital, September 21, 1891, with the following history:

Six months prior to admission she had been subject to attacks of vertigo, pain in the back and limbs, and for the last six weeks to a constant bloody vaginal discharge. Examination revealed a retroflexed uterus with a slight tear of the cervix, and the presence of a small movable mass behind and to the left of the uterus.

September 25th, four days after admission, the patient was etherized and the uterus was dilated and curetted. After the operation the discharge stopped, but the patient gained in strength very slowly. She was advised to submit to abdominal section, but preferred to wait until she was stronger. On the night of November 22d she awoke with a severe pain in the right side, and on attempting to walk to the water-closet fainted. After being returned to bed she again fainted and went into a collapse, the pulse becoming almost imperceptible and the temperature falling to 96°. Under active stimulation she reacted. The diagnosis was made of internal hemorrhage from rupture of a probable extra-uterine pregnancy.

The abdominal cavity was found filled with fluid blood and clots, and the right tube ruptured. The tube was tied off and the abdominal cavity flushed with hot saline solution, a glass drainage-tube introduced and the wound closed. The patient was not much shocked by the operation, but on the contrary seemed rather improved. The drainage tube was removed on the third day, the wound healed by first intention, and the patient made a good recovery.

Mrs. J. W., aged 36 years, was admitted to the German Hospital, November 21, 1894, with the following

history: About 2 o'clock on the morning of admission she was seized with a violent pain in the lower abdomen. For this she took some whiskey, and was somewhat relieved. At 9 o'clock the same morning she started for market and was suddenly taken sick, becoming very weak and suffering from a violent pain in her abdomen. She returned home with difficulty and called in Dr. Hand, who advised her immediate removal to the hospital. At the time of admission she was very weak, and there was distinct tenderness over the abdomen with slight dullness on the right side. Immediate operation was advised and consented to.

When the peritoneal cavity was opened it was found to contain fluid blood and clots. The right tube was the site of a small rupture, and was tied off and removed. The abdominal cavity was washed out with hot saline solution, glass drainage introduced and the wound closed. The patient was very much shocked by the operation and reacted slowly. During the operation hypodermatoclysis was practised. The drainage-tube was removed on the fourth day, the wound healed by first intention, and the patient was discharged, well, on the twenty-third day.

The following case of hemorrhage from ruptured extra-uterine pregnancy illustrates the danger of delay as strongly as did the two previous cases the efficacy of prompt interference:

Mrs. P., aged thirty years, was a patient of Dr. S. Cooke Ingraham, of Wissahickon, this city, who furnishes the following history:

I first saw the patient on January 29, 1892. She complained of severe abdominal pains, of a bearing-down

character, and of a sense of fullness in the epigastric region. She had been married seven years, but had never been pregnant, and laughed at the possibility. For the past three years the menstrual flow had been decreasing in amount, and for several months past had been very scant. The breasts were slightly enlarged, but the areolæ were not darkened. The glands of Montgomery were a little more prominent than normal. She had suffered from morning vomiting for the past month.

I was hastily summoned to see the patient on the morning of February 2d, and found her in a state of collapse, pulseless and with a temperature of 96.5°. She reacted to active stimulation and was sent to the German Hospital for immediate operation, a diagnosis of ruptured extra-uterine pregnancy of the tubal variety having been made. Upon admission her pulse and temperature were normal. She did not complain of pain. Examination of the abdomen and per vaginam and rectum failed to reveal any mass, although a circumscribed area of flatness could be demonstrated low down and to the right side. She continued in this condition until February 12th, when, at her own request, she was discharged. On February 23d she was readmitted at Dr. Ingraham's earnest request. At the time of the second admission the abdomen was markedly distended, being tympanitic above and flat below. Pulse 116, temperature 101.5°. She complained of considerable pain.

The following day she was operated on, and when the peritoneum was opened a fetus with clots and fresh blood gushed out. The ruptured sac

occupied the right iliac region, and was tightly adherent to the neighboring coils of small intestines, to the cæcum and to the vermiform appendix. After a prolonged and tedious dissection the sac was enucleated; this was accompanied by a very free bleeding, which necessitated packing of the cavity with gauze. The wound was closed with the gauze packing *in situ*. The patient died the following day of hemorrhage.

The immediate effects of an injury severe enough to cause a serious lesion of an abdominal viscus are sometimes so slight as to be misleading. Very often a patient with such a condition will walk to a conveyance or to the hospital, complaining only of a slight pain. In varying periods of time following the injury more decided symptoms will develop, viz: signs of hemorrhage, if the solid organs be involved, and early peritonitis if the hollow viscera be ruptured or torn sufficiently to allow their contents to escape. When this occurs operation is imperatively demanded without delay. This is also true of hemorrhage consequent upon the rupture of an extra-uterine pregnancy, be it traumatic or spontaneous. In ectopic gestation operation will be necessary in every case at some period of its history; therefore, if a diagnosis can be made, or even a well-founded suspicion of the condition exists, rupture should not be allowed to occur. If rupture does occur, however, immediate interference is the only certain means of saving the patient's life. The longer the operation is deferred the greater the risk to life. Hasty operations, often necessitated by the patient's condition, are likewise less lia-

ble to reach a favorable termination. Blood clots or intestinal or gastric contents cannot be washed out of the peritoneal cavity except by prolonged and repeated flushing.

The almost universal fatality of intra-abdominal lesions of traumatic origin is so well recognized that it seems as if there could hardly be any question as to the wisdom of opening the abdominal cavity. I would not be understood as meaning that abdominal section should be used as a means of diagnosis, but on the contrary I believe that every known means, with attention to the most minute details, should be exhausted in establishing a diagnosis. When a diagnosis is impossible, abdominal section is justifiable only when it becomes the last and only chance for the patient.

I have refrained from using the terms exploratory and diagnostic incisions, believing that they not infrequently serve as a shield to cover a lack of diagnostic ability. It is a moral obligation resting upon every physician and surgeon to develop to the utmost of his ability the highest diagnostic attainments.

Aseptic surgery has undoubtedly been one of the greatest boons to humanity that this nineteenth century has brought forth. But to me it seems that it affords a great temptation to men who have not had experience and surgical training, and who have, therefore, not fully developed their diagnostic skill, to do operations which are not necessary for their patients' good or with a scientific precision.

Please do not forget to mention this JOURNAL in writing to advertisers.

Society Reports.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Seventh Annual Meeting, in Charleston, S. C., November 13, 14 and 15, 1894.

Dr. Richard Douglas, of Nashville, Tenn., followed with a paper entitled Acute Peritonitis.

Appreciating the condition under which the colon bacillus may escape from its natural habitat and become actively pathogenic, and knowing the supply is unlimited, the dose being governed alone by the integrity of the bowel, naturally we accord to this bacillus the first place in the causation of peritonitis.

In obedience to the teachings of experimental work, the surgeon must accept the classification of Pawlowski of two forms of peritonitis:

1. That produced by chemical agents with which we are not concerned.
2. That produced by infection. The latter is more tangible.

The latter is more tangible. It is

Infection from with- out	Immediate.	{ This is direct infection of the peritoneal membrane through penetrating wounds of the abdomen, either accidental or surgical.
	Mediate.	{ This form embraces all cases of contamination of the peritoneum occurring from extension of adjacent infected areas, as leakage from mural abscesses or puerperal infection.
Infection from with- in	Immediate.	{ Visceral perforation or rupture and direct inoculation of the peritoneal membrane with escaping contents, as in perforating typhoid or gastric ulcer, appendicitis or rupture of gut or bladder.
	Mediate.	{ Infection by emigration of microorganisms through visceral wall of impaired resistance, as in incarcerated hernia, intestinal obstruction, ruptured ovarian cyst.

fully in accord with our idea of the genesis of the disease. It harmonizes with clinical work. With Mordecai Price, the author agrees that every case of general peritonitis has a demonstrable cause, and that cause is septic in character. Pathological manifestations of peritoneal infection are subject to many variations which, in a great measure, indicate the virulence of the poison and guide us in forming a prognosis, but to simplify matters, the author considered it under two heads, which indicated the microscopic and macroscopic changes, the results of general peritonitis.

It is an indisputable fact that the type and virulence of the inflammation is largely dependent upon the origin, hence in our bed-side work we may consider the subject under the following etiological classification:

The author then reported a few illustrative cases. One case was reported of general purulent peritonitis. The patient recovered, and the author considers that it was due entirely to free incisions, thorough irrigation and ample drainage.

THIRD DAY—MORNING SESSION.

Dr. George J. Engelmann, of St. Louis, read a paper on History of Vaginal Extirpation of the Uterus, in which he stated that at the New Orleans meeting of the Association he was interested in vaginal hysterectomy, which he presumed was a comparatively new operation with very recent modifications; but Dr. Lewis, of that city, called his attention to an old French pamphlet showing that the operation had been done in the '20's. Since then he had found it was done still earlier precisely as it is done today, the operation having developed step by step.

Dr. Lewis, of New Orleans, in the discussion stated that the first vaginal hysterectomy was performed by Dr. Dabourg in the little town of Autell, France.

Dr. Edmond Souchon, of New Orleans, read a paper entitled Reminiscences of Dr. J. Marion Sims in Paris.

In 1860 Dr. Souchon had just entered into the study of medicine in Paris, and was attached to the service of Prof. Velpeau. In the spring of the following year he by accident met Dr. Sims, who had come to Paris with a letter to Velpeau from Valentine Mott, of New York. At this time Dr. Sims knew nobody in Paris and could

not speak a word of French, so that the meeting of young Souchon was a very great help to him in his intercourse with Velpeau and the other surgeons of the French capital. Sims' great object was to get a case on which to demonstrate the success of his operation for vesico-vaginal fistula. Velpeau procured a case upon which Sims operated successfully before a large audience of students, doctors and professors in the operating theatre of the old Charite.

The ovation Dr. Sims received was very great and gave him the start that made him the universal surgeon we all know him to have been. Wherever Dr. Sims traveled and located he had more calls than he could attend to. The Doctor's success, however, was not without hard moments, for twice he met cases that came very near terminating disastrously from the effects of chloroform. But their final recovery only increased the admiration of all for Sims' fine qualities as a surgeon.

Dr. Soucher relates in his paper several instances of Dr. Sims' generosity and gives a graphic account of the generous and sublime manner in which Dr. Sims came to his rescue in a trying moment of great distress.

Dr. Souchon's paper ends in words of highest praise, enthusiasm and love for the great and good man that Dr. Sims was.

Dr. George H. Noble, of Atlanta, Ga., read a paper entitled A Case of Carcinoma of the Parturient Uterus; Removed Three Days After Confinement; Recovery.

The specimen he presented was one of carcinoma of the parturient uterus removed by vaginal hysterectomy three

days after labor. The woman had previously been confined, sustaining a laceration of the cervix uteri, which, perhaps, was a factor in the cause of the disease. In the first few months of the last pregnancy the patient was treated locally by her family physician; but there was nothing to cause a suspicion of malignancy. Almost the entire vaginal portion of the cervix was destroyed, less than one-fourth of its circumference remaining intact. The induration extended deep into the uterine tissue, but could not be felt beyond the limits of that organ. The roughened ulcerated surface was easily traced for a considerable distance within the cervix, the os being dilated to about five centimeters in diameter. Her condition was unpromising, and surgical interference was clearly interdicted, so the os and vagina were cleansed thoroughly and lightly dressed with gauze. She was then placed profoundly under the influence of morphia sulphate with a view of arresting labor, securing rest and recuperation sufficient to permit evacuation of the uterus, which occurred spontaneously twelve hours later. The child was poorly nourished and lived only a few weeks, finally dying of inanition.

What is the advantage of hysterectomy over Porro's operation, and if hysterectomy is preferable, should the vaginal or abdominal method be given precedence over the other? To the first question the author answered that hysterectomy undoubtedly promises more to the mother than a Porro operation in cases where the disease is confined to the uterus, and he says that when the cancerous mass can be successfully removed, it is the duty of the surgeon

to do it, as Porro's method merely bridges the woman over the puerperal state and leaves her to her fate. In radical removal there is a promise of cure.

In answer to the second question, the author said it is evident that the method of operating must depend largely upon the character of each individual case. Thus the vaginal operation may be done when it is desirable to take advantage of the diminished liability to shock, even though the large size of the uterus may render the operation more tedious.

The main point in the paper was to show the feasibility of hysterectomy in the puerperal state for cancer of the uterus, as the case reported clearly demonstrated, even though it is too early to claim immunity from the return of the disease.

Dr. John A. Wyeth, of New York City, contributed a paper entitled *Ligation of Arteries*.

The author said that in August, 1894, in an operation for the removal of a malignant neoplasm of the upper left jaw, which involved sphenomaxillary fissure and part of the orbital cavity, it became necessary, as a preliminary operation, to ligate the external artery. In cutting down upon this vessel by the usual incision—the point of bifurcation of the common carotid artery being, as demonstrated by him in a study of 121 subjects, opposite the upper border of the thyroid cartilage—he found quite a network of veins crossing from the median line of the neck to the internal jugular immediately over the point of ligation, and spreading from one-half an inch above down to the bifurcation of the common carotid. As it would

have taken some time to apply a double ligature to each one of these veins, and as the author, on account of the general bad condition of the patient, desired to expedite matters as much as possible, he resorted to this expedient: By catching hold of the sheath of the common carotid and at the same time making gentle traction upon the lowermost of these veins with a blunt hook in an upward direction, he found that with his aneurism needle, armed with a good-sized catgut ligature, he could slip this instrument around the artery just in the crotch of bifurcation of the common into the external and internal carotids. Having every confidence in the healing power of arteries ligated under aseptic conditions, especially those tied with animal ligatures—in preference catgut—the ligature was applied at this point and immediately tightened. It was so close to the common trunk that it also occluded the superior thyroid branch, which is given off, as a rule, just at this point, and which he saw within the grasp of the ligature as he tightened it. The wound was immediately closed without drainage and sealed with iodiformized collodion dressing. The operation on the jaw was completed with an insignificant loss of blood, and on the fifteenth day after the operation the patient left his private infirmary in New York City for his home in the western part of the State. There was no hemorrhage following this deligation.

About five months ago, in a similar operation, a ligature was applied at this point with equal success. The speaker did not relate these two cases for any bearing they might have upon the safety of ligation of the external

carotid artery, since that question had long been settled. But the reason for narrating these two cases was to bring before the Association a consideration of the inflammatory changes which occur in arteries which have been ligated, and to discuss at length the best methods to pursue in these operations to secure the greatest safety to the patient.

In tying arteries an important point to consider is the selection of a ligature. It seems to the author that in the animal ligature, and especially in well-prepared and properly asepticized catgut is found the best ligature material. For the last ten years he had used catgut almost without exception, only once or twice using silk, and then in the ligation of the large venous trunk close to the root of the neck, in which he was fearful that the animal ligature might slip from the blood-pressure in the act of vomiting as the patients came out from under the influence of the anesthetic.

Porta, in 400 experiments, saw that in from one to two years 70 per cent. of catgut ligature had become absorbed; 36 per cent. of silk; 66 per cent. of hemp or flax, and 20 per cent. of horse-hair.

Dr. James Evans, of Florence, S. C., read a paper entitled *Simultaneous Appearance of Cancer in the Breast and Uterus*.

The subject of this interesting manifestation of the disease was a woman 53 years of age, married, and the mother of six children. A striking peculiarity in the history of the case was that, when the disease was most active and destructive in the breast, it rather checked and retarded its tendency in this direction in the uterus.

Excision of the cervix and removal of the breast were proposed, but declined.

The author closed by saying that, although there is a very general consensus of opinion among surgeons that the most successful treatment of cancer affecting the breast and uterus is early and radical removal by the knife, yet it is doubtful, in the opinion of the author, if operation is advisable when the disease appears in multiple form and in distant organs. When the disease is confined solely to the uterus and recognized at an early stage of its invasion, the prompt removal of the organ is usually followed by permanent recovery; in fact, recurrence less often takes place than removal from any other organ or part of the body.

Dr. W. E. Parker, of New Orleans, reported 7 cases of varicocele treated by incision, ligation and shortening of the scrotum. An incision, varying in length according to the size of the varicocele is made, and the scrotum shortened by converting the wound from a longitudinal into a transverse one. All cases recovered with union by first intention, and are still doing well, the period since the first operation being seven months. At the conclusion he laid down the following general indications for the treatment of varicocele. The milder forms should be treated with a suspensory bandage, with proper attention to diet, exercise and bowels. A varicocele should be operated upon: (1) If it is of large size. (2) If it is painful. (3) If marked nervous symptoms be present. (4) If the testicle is atrophying. (5) If the varicocele is increasing rapidly. (6) If it is an obstacle to entering a

public service. (7) If, on account of a patient's occupation, a suspensory is troublesome and he desires an operation.

Dr. Rufus B. Hall, of Cincinnati, Ohio, read a paper entitled Fibroid Tumor of the Uterus with Suppurating Ovary Discharging per Rectum.

As a preface to his report, Dr. Hall said the subject of operative treatment for fibroid tumor of the uterus is one in which the keenest interest is manifested by men engaged in abdominal surgery. The main points in the technique of the operation have been practically settled, but certain minor details in operative procedure are capable of improvement. Complications occasionally arise, which tax to the utmost the skill of the operator.

The following case was reported in detail as illustrating a number of these complications. The patient, aged 44, was known to have a fibroid tumor for five years. She had suffered from sepsis for five weeks previous to the operation. In addition to the fibroid tumor was a large suppurating ovary holding about two pints of pus, which discharged per rectum every eight or ten days. The suppurating ovary was densely adherent, and after its removal disclosed a large opening in the rectum. The operation included total extirpation of the fibroid uterus with the suppurating ovary and repair of the intestinal rent. There was no leakage of the injured bowel after the operation. The patient recovered.

The Doctor drew the following conclusions: The question of operation during sepsis is one that will admit of discussion both *pro* and *con*, but in the end it must be decided by the merits of the individual case and not by rule,

As to technique, total extirpation was given the preference, as it gives the ideal condition, both theoretically and practically, for after-treatment. The Baer method was condemned, as it does not give thorough drainage—a thing absolutely necessary where there are extensive raw surfaces which have been bathed in pus, and no peritoneum to close off the general peritoneal cavity. The strengthening of the suture line with a tag of adventitious tissue was devised. The packing of the pelvis with gauze to protect the cavity from intestinal leakage should any occur, and to prevent intestinal adhesions was recommended. The gauze is usually removed on the fourth day and peroxide of hydrogen used as a wash for the cavity several times daily.

Again, forcible dilatation of the sphincter ani muscle to cause incontinence, thus relieving the intra-intestinal pressure from accumulating gases, the Doctor says, adds greatly to the chances for recovery. He first employed it for this purpose on February 6th, 1893, in an operation for extra-uterine pregnancy with extensive bowel injury, the patient recovering. He says, so far as he knows, he is the first man to practice forcible dilatation for this purpose.

Dr. J. G. Earnest, of Atlanta, Ga., contributed a short paper in which he reported some complicated cases of pelvic surgery. Two cases were detailed simply to illustrate a method of treatment that, under certain circumstances, is safer for the patient and just as apt to give relief of symptoms as total extirpation of the tumor, also to emphasize a growing conviction the author has that intestinal adhesions

are frequently tinkered with, when it would be best to let them alone. The essayist was no advocate of timid or imperfect surgery, but in cases where the tumor can be effectually dealt with without disturbing old, thoroughly organized adhesions, which the history and condition of the patient clearly show to be harmless, and, in view of the fact that if those adhesions are loosened they will almost certainly anchor at some other point where they may be a source of constant annoyance, or even produce a fatal obstruction of the bowel, he believes it best to leave them undisturbed.

Dr. Herbert M. Nash, of Norfolk, Va., read a short paper on *The Removal of an Intra-Uterine Fibroid Tumor by Morcellement Without Hemorrhage.*

In September, 1892, he saw, in consultation, Mrs. A., aged about 42 years, the subject of intractable hemorrhages from the uterus, lasting from two to three weeks of each month, and which had been habitual for several years. The uterus could be plainly felt above the pubes, and by the conjoint method, sound and so forth, the diagnosis of intra-uterine fibroid was made. Not wishing at that time any radical procedure, she continued under the care of her physician, whose best efforts to control the hemorrhage proved fruitless. On the 11th of July, 1893, she entered the hospital for surgical treatment.

On the 26th of August the essayist operated under ether. It was found quite impossible to dilate the os to the extent desired, but there was room enough for manipulation without dividing the cervix, and no difficulty was found in seizing the presenting mass—the attachment of which to the uterine

walls had been made out to be sessile—with a strong vulsellum. Upon making traction with some force, in order to determine the best method of procedure, the tissue gave way, and the withdrawn part of the detached mass was quite large, but no bleeding followed. This fact decided the Doctor to proceed by morcellement, and with the forceps, scissors and the instrument he exhibited, the whole growth was removed piece-meal, and with only a slightly colored serous discharge. The previous packing had been so effectual that the growth itself, and, indeed, the uterine walls, appeared to have been exsanguinated. The fragments removed, when under strong compression, presented a mass of fibroid tissue nearly as large as an ordinary cocoanut.

When the patient left the hospital

the uterus had contracted firmly and measured a fraction over three and one half inches in depth, occupied its proper position in the pelvis, and the patient is to-day entirely well, with perfect normal functions.

The following officers were elected:

Dr. Louis McLane Tiffany, of Baltimore, Md., President.

Dr. Ernest S. Lewis, of New Orleans, La., First Vice-President.

Dr. Manning Simons, of Charleston, S. C., Second Vice-President.

Dr. Richard Douglas, of Nashville, Tennessee, Treasurer.

Dr. W. E. B. Davis, of Birmingham, Ala., Secretary.

After introducing and adopting resolutions of thanks, the Association adjourned to meet in the City of Washington, D. C., the second Tuesday in November, 1895.

BUNCOMBE COUNTY MEDICAL SOCIETY.

Stated Meeting January 7, 1895.

Dr. J. A. Watson read a paper entitled

"TOTAL EXTIRPATION OF THE UTERUS FOR FIBROMA, COMPLICATED BY PREGNANCY." (See page 81.)

Discussion.

Dr. von Ruck: I regret that the pathological specimen has not been demonstrated in connection with the reading of the report, which would have given a better opportunity of judging of the necessity of extirpation of the pregnant uterus, instead of removing the tumor and allowing the pregnancy to continue. I would also

like to know how the author determined the death of the fœtus, and whether he believed that the fœtus was dead before he attempted to evacuate the uterus.

Dr. Watson: The attachment of the tumor to the uterus was such that, as the former sunk down into the pelvis posteriorly, it dragged the uterus upward anteriorly, so that traction was exerted upon the organ; thus the cervix was pulled up behind the symphysis, and, on opening the abdomen, the uterus was spread out upon the surface of the tumor. The attachment of the tumor to the uterus was so

broad and short, that I did not dare to attempt its extirpation in so decrepit a patient without controlling the hemorrhage by temporary elastic ligature around the cervix, which I feared would lead to the death of the fœtus, if it was alive, while, in addition, the very thin walls of the uterus made it certain that the organ would be opened by the removal of the tumor itself. The patient already had fever, and if I had opened the uterus containing a dead, and possibly decomposing fœtus, I am almost sure I would have lost the patient.

Dr. Reagan: I was present when the attempt was made to terminate the pregnancy, and believed at that time that it would be best to do this and afterward remove the tumor. No uterine contractions following and the patient growing worse, there was no other alternative than to proceed to abdominal section. Temporary illness prevented my presence at the operation, but from all I have known and learned of the state of affairs found, I think the extirpation was justified.

Dr. Whittington: I have seen the pathological specimen after its removal, and it did not impress me that the tumor could not have been removed without sacrificing the uterus. The attempt to terminate labor before operation had not resulted in the escape of the amniotic fluid, and therefore no contraction and expulsion could take place. If this operation was justifiable with so simple an attachment of its pedicle to the uterus, then all cases in which a fibroid tumor of the uterus develops rapid growth under the occurrence of pregnancy, would justify total extirpation of the uterus.

Dr. Watson: I have already stated my views as to the conservatism that should be practised in such cases—these are principles which may be discussed properly, but in the individual case existing conditions must govern us in our procedure. These appeared to me to be such that I felt justified in doing the radical operation as the only means of saving the patient's life.

Dr. von Ruck: After the attempt was made to procure abortion, and in the light of the extreme condition of the patient, with a dead fœtus in the attenuated uterus, the removal of the tumor would probably have resulted in opening the uterine cavity, undoubtedly a very serious complication, especially if the contents of the latter were the cause of the existing fever, and it is perhaps fortunate that the attempted abortion was unsuccessful and was quickly followed by the radical operation, for it is not likely that the uterus could have expelled its contents, especially not the placenta, even if the amniotic fluid had escaped and if contraction had thereupon ensued.

Dr. Watson: I am of just this opinion, and regret that I attempted at all to evacuate the uterus before the operation, and would not do so again under similar circumstances. After the abdomen was opened the patient's condition required a speedy termination of the operation if I would not have her die upon the table. I feared the loss of blood, and the thin uterine wall and its probably septic contents, and therefore extirpated uterus and tumor together, as the only safe way to prevent disaster.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

January 8, 1895.

The officers for the year 1895 were installed at this meeting—Dr. Wm. J. Gordon, President; Dr. Mark W. Peyser, Secretary; Dr. John F. Woodward, Secretary.

Dr. Hugh M. Taylor read the paper for the evening:

SURGICAL TREATMENT OF SPINAL TRAUMATISMS.

It is necessary for us first to classify what we are going to treat, and then determine how to treat it. The classification I shall make is (1) Anatomical, as traumatism of the cord, membranes, bony canal and ligaments; (2) Clinically or pathologically, concussion (sic) of the spine, contusions, hemorrhages, inflammatory deposits, cicatricial contraction and morbid changes incident to intra- and extradural injuries, fractures, dislocations and the train of symptoms following injuries to the nerves after they have left the cord. In order to apply intelligent treatment, it is necessary to differentiate between the manifestations of the different varieties of traumatism. It must be kept clear, that all the manifestations to treat are results of pressure, as from effusions of lymph, serum or blood-clot, bony fragments, cicatricial contraction, etc.

According to most authorities, concussion of the spine is a misnomer, as the cord is so well protected by a water bath, by being anchored by the nerves in the bony cavity, which is situated deep, lying in a mass of muscular tissue and held strongly together by ligaments. Injury while upright is

rare, it occurring when the spine is flexed, as in the bending posture. It is hard to realize that, with these natural protections, there can be such a condition as concussion. It is really a part of shock. If the symptoms extend beyond the time in which shock should be recovered from, contusion is present.

Take into consideration the important part that the ligaments play in traumatism of the spine—compare sprain of the spine with those of other parts, and we must conclude that sprains of the spine are frequent. Many of the so-called injuries to the spine are ligamentous, and not nervous. If a spinal ligament is torn or contused, it must be repaired by new tissue formation, which may affect probably the roots passing through, causing neuritis and trophic, motor or sensory disturbances. The damage may be outside and yet be manifested above, e. g., long-continued neuralgia. Many of the so-called railway spines are simply such.

We do not often have the opportunity of studying contusions of the cord by post-mortems. We must study by analogy, knowing all the results due to pressure.

The most common morbid condition is hemorrhage, the cord being richly supplied with blood-vessels, and a contusion causing their rupture is not by any means rare.

It is important to differentiate pressure due to blood, serum or lymph: If the symptoms come on immediately, they are the result of fracture or dis-

location; if in two or three hours, they are the result of pressure from hemorrhage; if in a day or two, serum is the cause; and if the symptoms of compression occur after weeks, they are due to lymph effusion.

The manifestations of pressure are (1) of the cord proper, depending on the part upon which pressure is exerted; (2) of the spinal nerves, as interference with, or destruction of, their functions, as spasmodic contraction of the muscles supplied, paralysis, anæsthesia, hyperæsthesia, formication, etc. The symptoms are not only local, but remote; not only immediate, but subsequent.

It is not easy to say that the damage to a nerve is within or without the cavity. The reflex effects of nerve irritation are manifested at times when no plain explanation can be given. Mitchell and others say they are due to paresis of the higher centres.

Treatment.—The field of surgical treatment is limited, as when pressure from exudate exists. Traumatism of the ligaments are not within surgical limits. Massage and extension should be employed for these. For damage to the cord, iodides, mercury, rest, douche, massage and moral treatment, which is important.

The only classes of injuries calling for surgical treatment are fractures and dislocations. Cut down on the spine to remove fragments and relieve pressure; but this is not an easy matter. It is advised to bite off the spinal and then the transverse processes until the cord is reached, and then be guided by indications as to the presence of clot or effusion by the bulging, discoloration, etc.

It is conceded that the danger from hemorrhage or loss of spinal fluid is not as great as that of pressure.

Another method of treatment is absolute rest, extension to head and feet, and the use of sandbags.

The bladder must be cared for and bed-sores prevented. The reduction of fracture before operation is debatable, on account of the injury that may be inflicted in the process; and then it is doubtful if fracture or dislocation can be diagnosed without cutting down.

Dr. Mark W. Peyser reported the case of a man who, while mining, was struck on the back by a large mass of earth, resulting in dislocation of three vertebræ. Operation was of no benefit, and the man succumbed. He also said that statistics show that tapping the cord for the relief of pressure was unavailing.

When iron disagrees, it is usually because the dose has been too large. A single drop of tincture of chloride will often act as an efficient chalybeate, if given in a full tumbler of cold water after meals, when larger quantities will fail. The good effects achieved by the use of the various ferruginous waters possibly depend on the minute quantity and the thorough dilution.—*Exchange.*

POSTPONEMENT OF THE DERMATOLOGICAL CONGRESS.—Dr. Geo. T. Jackson informs us that the Third International Dermatological Congress will not be held this year, as proposed. It is possible that it may not be held until 1897.—*Boston Med. and Surg. Jour.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

TREATMENT OF VARIOLA BY ANTITOXIN.

Dr. J. J. Kinyoun, Past Assistant Surgeon of the Marine Hospital service, has made an interesting preliminary report (Abstract of Sanitary Reports) on the treatment of variola by antitoxin. It has been demonstrated by Maurice Raymond and Sternberg that the blood serum of an animal immune to vaccinia destroys the potency of vaccine lymph. If this neutralizing effect occurred outside the body why should it not take place within the body, and thus prove a valuable means of treating small-pox? Dr. Kinyoun has put this theory into effect in two cases of small-pox and has given the result—this report. On December 23, 1894, a liter of blood was taken from a heifer calf which had been previously

vaccinated on November 26. At the time of the bleeding the local effects of the vaccination had disappeared and the animal was, to all appearances, perfectly well and sound. As soon as the blood was withdrawn it was taken to the laboratory, where, on the next day, 350 c.c. of tolerably clear serum were drawn off. A part of the serum was transferred to a sterilized flask and a part passed through a special filter to remove all blood corpuscles and any chance bacteria that might have contaminated it. Experiment proved that both these samples had the power of destroying the potency of lymph, so that the antagonistic property must dwell in the serum.

In the treatment of the two cases of small-pox the filtered serum was used. The first case treated was a negro, aged 28, who was admitted to the hos-

pital December 21, with malignant variola. His condition on admission was very unfavorable, the eruption confluent, with high temperature and violent delirium. On December 25, there was considerable hæmorrhage in the pustules and much gastric irritation. On December 28, the patient's temperature was 99, pulse 120, respiration 32 and quite superficial. Urine contained ten per cent. of albumen. On this day at 10 o'clock 15 c.c. of serum were injected subcutaneously after thoroughly disinfecting the surface. The breathing became deeper, the temperature rose to 99.6 and patient very thirsty. At 2.30 another dose of 15 c.c. was given; a third dose at 9 p. m., and a fourth the next morning, making 60 c.c. in all. The patient grew constantly worse and died on the 31st. The second case was a negro, 20 years old, admitted January 5. Eruption had appeared five days before. Temperature on admission 99.8° F., pulse 98, respiration 24. Had considerable bronchitis. Fifteen c.c. of serum were injected at 11 a. m. An hour later temperature was 100.8, pulse 88, respiration 24, and deeper. At 5 p. m., 15 c.c. injected—temperature 102.2, pulse 92, and strong; respiration 24, of good depth. "Quite a notable change occurred in the pustules, which appeared to be losing their moist character, having an inspissated appearance, and quite a number of very small new pustules appeared in the healthy skin." At 3 p. m. 30 c.c. were injected, about half an hour after which patient complained of a difficulty in breathing. This passed off in the course of an hour. At 9 p. m. 30 c.c. more were given, which produced no ill-effects; temperature 102,

pulse 100, respiration 26; urine showed albumen, but in smaller quantity than before. "On the succeeding day there was a marked change in the eruption—all the former pustules now drying up—the smaller ones which appeared the day before seemed to have aborted. The general condition of the patient more favorable." No further treatment was given and the case was convalescent at the time of the report.

These cases were treated by Dr. Elliott, the physician in charge of the hospital, who states that he believes the administration of the serum in the first case prolonged life at least seventy-two hours.

Both of these cases were unfavorable, as the disease had progressed to the pustular stage before the remedy was applied, but it is certain that even at this stage it has some influence upon the eruption, for in the second case the eruption was so modified that there will be no, or very little, pitting. Dr. Kinyoun concludes that "since it seems possible to mitigate the attack of variola, it also appears rational to presume that the serum would have power to render susceptible persons refractory to the disease." We await the fulfillment of his promise to pursue his investigations along this line and incorporate the results in a forthcoming paper.

. Dr. Annie W. Williams has been appointed as assistant bacteriologist of the New York Health Board. The steadiness, skill and precision which characterizes the sex in matters which they set their attention to, and their close attention to details and habit of routine well fit them for work of this nature.

Reviews and Book Notices.

Practical Uranalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons and Students. By Charles W. Purdy, M.D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urology and Urinary Diagnosis at the Chicago Post-Graduate Medical School. With Numerous Illustrations, including Photo-Engravings and Colored Plates. In one Crown Octavo volume, 360 pages, in Extra Cloth, \$2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

The great importance of urinalysis in the diagnosis of pathological conditions and in pronouncing upon the fitness of applicants for life insurance is being recognized by the best medical colleges of the country, and work in the laboratory is now made obligatory upon those who graduate. It is one of those methods of precision which is a requisite for the physician who would be "up to date." In the words of the author: "As a rule, he who has accurately diagnosticated disease has already constituted himself its conqueror."

Dr. Purdy's long experience, extending over twenty-five years in this line of work, has eminently fitted him to write upon this subject. He has advanced some original matter and methods, though there is not much that is new. The great value of the work lies in the collecting together in the pages of one convenient volume the facts which, hitherto, lay scattered in the text-books upon various subjects, as well as upon the soundness of the author's teaching. The normal and abnormal constituents of urine, with the method of determining, and the

significance of each, are described in Part I., while Part II. is devoted to a study of the urine in various diseases. The Appendix is a special chapter upon Examination of the Urine for Life Insurance, and will prove very useful to those who are engaged in that class of work.

A Synopsis of the Practice of Medicine for Practitioners and Students. By William Blair Stewart, A.M., M.D., Lecturer on Therapeutics; late Instructor on Practice of Medicine in the Medico-Chirurgical College of Philadelphia; etc., etc. Octavo, cloth, pages 433. E. B. Treat, 5 Cooper Union, New York. Price \$2.75.

This work is less than a text-book and more than a compendium. As its title indicates, it is a brief, condensed outline of the practice of medicine which will start the wheels of thought in him who reads.

Numerous methods of treatment are avoided and those mentioned which have received the highest sanction. The classification of the larger text-books, though objectionable to the author, is followed, and the history, etiology, symptoms, diagnosis and treatment of each disease are briefly discussed. Of course, in a book intended to be so condensed as this, objections must be found, but they are few. As an example, in describing the cold bath for the reduction of temperature, the author specifies that the patient shall be rubbed gently with a coarse towel after being removed from the bath, but does not allude to the very much more important point of *keeping up* friction of the surface of the patient's body all *during* the bath. He follows the larger text-books in giving promi-

nence to the 2-degrees rise of the evening and the 1-degree fall of the morning temperature as a diagnostic point in typhoid fever. We believe such a temperature cure is almost never seen in this

section and but rarely anywhere. As a whole the volume is very satisfactory and is well gotten up. The important points are italicized and there are no illustrations.

Abstracts.

URETROTOMY.—Dr. Kelly (Johns Hopkins Hospital Bulletin) refers to three cases in which he resorted to this novel operation for the purpose of ascertaining the permeability of the ureter. The operations were for myoma uteri, carcinoma uteri and dense pelvic inflammatory disease. After the completion of the operations there was a fear that the ureter had been included in the ligature, as in each instance it appeared to be enlarged. To release a large number of ligatures and expose the patient to the risk of hæmorrhage, or to perform catheterization of the ureter would have been impracticable. He therefore located the ureter at the pelvic brim, snipped the peritoneum over its course, and made a longitudinal incision one-half cm. in length into the lumen, through which he passed a small ureteral sound into the bladder,

In two cases the ureters were found to be free, the enlargement being due to the pressure of the pelvic mass previous to the operation. In the third case the ureter had been included *en masse* with a large area of bleeding tissue in the pelvic floor. After the removal of the ligature the sound passed easily into the bladder. By this simple operation much time was

saved and all three cases had uninterrupted recoveries. For closing the slit in the ureter he used the delicate mattress suture in two cases. The third required four sutures on account of the persistent oozing of the urine. These sutures are very lightly passed into the outer coat of the ureter, not entering its lumen.

REMOVAL OF THE UTERUS OR DISEASE OF THE ADNEXA.—Prof H. C. Coe, (N. Y. Polyclinic) in some recent remarks before the Obstetrical Section of the New York Academy of Medicine, said he was formerly opposed to the removal of the uterus for disease of adnexa, but he is now rapidly coming to believe that it is clearly indicated in not a few instances. He presented a specimen which furnished another argument in favor of this position. The case was one of double ovariectomy, but the woman returned with severe hemorrhage from the uterus, which did not exist before the operation, and her second condition was worse than the first. Examination revealed a tumor connected with the left horn of the uterus, and which was diagnosed as a broad ligament cyst. He enucleated the uterus as far as possible, tying the few vessels that

were divided. He is rapidly coming to the opinion that the persistence of various symptoms, pain, hemorrhages and post-climacteric disturbances after the removal of adnexa is due to the fact that the uterus is left, and he therefore advises now that the uterus, when evidently diseased, should be removed.

ECZEMA OF THE AURICLE.—Dr. Gleason (*Medical Progress*) recommends in eczema of the auricle due to seropurulent discharge from the meatus, that the scabs be removed and the parts cleansed by the application of

peroxide of hydrogen on a cotton mop, after which an ointment, consisting of six grains of yellow oxide of mercury to an ounce of petrolatum, is rubbed into the skin. After cleansing, the canal should be dusted with boric acid, reduced to an impalpable powder.

THE VALUE OF DIFFERENT BRANDS OF PEROXIDE OF HYDROGEN.—Endemann (*Times and Register*) publishes the results of a study of the various brands of H_2O_2 , which are offered in the market. He has studied fourteen brands and tabulated his results as follows:

BRANDS.	Volumes of Available Oxygen.	Residue from 100 c.c. of H_2O_2 .	Acidity in c.c. of Soda Solution for 100 c.c. of H_2O_2	Baryta in 100 c.c. H_2O_2 .
No. 1. John Bene's Peroxide of Hydrogen Medicinal.....	10.50	0.1886	2.19	None
No. 2. Hydrozone.....	27.35	0.2180	3.11	None
No. 3. Darkin & Scheffer's Peroxide of Hydrogen Medicinal.....	9.65	0.1206	6.75	None
No. 4. Mallinckrodt's Peroxide of Hydrogen Medicinal.....	9.55	0.1408	1.43	None
No. 5. Marchand's Peroxide of Hydrogen Medicinal.....	16.55	0.564	1.29	None
No. 6. McKesson & Robbins' Peroxide of Hydrogen Medicinal.....	10.95	0.0540	0.44	None
No. 7. Merck & Co.'s Peroxide of Hydrogen Medicinal.....	0.50	0.2418	4.57	None
No. 8. Oakland Chemical Co.'s Peroxide of Hydrogen Medicinal...	10.50	0.0382	0.34	0.0017
No. 9. Peuchot's Peroxide of Hydrogen Medicinal.....	10.60	0.4674	1.77	0.0018
No. 10. Powers & Weightman's Peroxide of Hydrogen Medicinal...	8.40	0.0830	2.03	None
No. 11. Pyrozone, 3 per cent.....	11.20	0.0534	0.76	None
No. 12. Rosengarten & Sons' Peroxide of Hydrogen Medicinal.....	3.10	0.1002	0.25	None
No. 13. Smith, Kline & French Co's Peroxide of Hydrogen Medicinal.	6.15	0.0880	2.6	None
No. 14. E. R. Squibb's Peroxide of Hydrogen Medicinal.....	12.40	1.004	12.94	None

He considers sample No. 2 as far superior to any other brand which has ever been made, "not only on account of its large amount of available oxygen, but also owing to the presence of a small quantity of several essential oils, the respective nature of which could not be determined." Dilution of this brand with equal part of water gives a solution containing about 13.5 volumes of available oxygen and its bactericide power still remains about the

same as that of sample No. 5, which contains 16.55 volumes of available oxygen. Sample No. 14 comes next to No. 5, though the degree of acidity is too large for sensitive diseased mucous membranes. Sample No. 11 contains 11.20 volumes of available oxygen and is quite similar to No. 6, with the exception that the latter contains a small quantity of salicylic acid, which the author thinks impairs its keeping properties. The fourteen.

brands all contained acid (phosphoric, sulphuric, muriatic), and peroxide of hydrogen should never be made neutral before using even in the most delicate cases.

A standard solution of H_2O_2 should answer the following tests: (1) It should contain at least 15 volumes of available oxygen; (2) the free acid contained in 100 c.c. should require not less than 1 c.c. and not more than 3 c.c. of normal volumetric soda solution to be made neutral; (3) it should not contain any soluble baryta salts; (4) it must be free from sediment. Brands No. 7 and No. 12 are valueless. Brands No. 8 and No. 9 are not fit for medicinal uses, as they contain traces of soluble baryta. Brand No. 14, which is sold as a 10-volume solution, is really 12 volumes, but is too acid. Brand No. 5, sold as a 15-volume solution, is really 16.55 volumes, about 10 per cent. above the standard.

AN UNUSUAL HABIT.—Katzenbach (*N. Y. Polyclinic*) reports the following case: A watchman applied for relief from a colitis of four years standing. Fifteen years ago he was subject to severe attacks of cramp. In one of these attacks he was given some rock candy, and, after eating a small quantity, his pain quickly and miraculously vanished. Since then he has continued its use, being unable to break off from the habit. If deprived of it for even a short while, he experiences an extreme dryness of his mouth and fauces, in addition to abdominal pain, which only rock candy can relieve. He has lost all of his teeth. The Doctor does not consider his colitis (which was relieved by proper treatment) due to the ingestion of the candy.

CREOSOTE, HYPODERMATICALLY, IN FŒTID BRONCHITIS.—Dr. R. Werden (*Med. Week*) relates the following case observed by him as a striking example of the remarkably powerful prompt influence of creosote on fœtid bronchitis: The patient presented numerous fistulæ in the anal region, communicating with the rectum, for which he was operated upon. No ill-effects followed this operation until about a month later, when the patient was seized with fever, pain in the left infra-clavicular region, violent coughing and expectoration of a greenish-gray, very fœtid matter, containing bacteria and micrococci in abundance. This fœtid bronchitis, and the fever to which it gave rise, persisted unabated, in spite of inhalations of oil of turpentine, as well as internal administration of oil of anise and quinine. The patient was rapidly sinking, when it occurred to Dr. Werden to administer creosote hypodermatically. He first injected (on the left side of the thorax) $1\frac{1}{2}$ cubic centimeters of a solution of beech-wood creosote in olive-oil, 1:14, that is to say, about 10 centigrammes of pure creosote. In the evening of the same day, the temperature, which before had been continuously 40° , fell to 38.8° C. The next day an injection of 3 cubic centimeters of the creosoted oil (20 centigrammes of creosote) was administered, with the result that the temperature fell to 37.7° C., the thoracic pain completely subsided and the cough expectoration and fœtidity of the discharge manifestly diminished. When two more injections of $4\frac{1}{2}$ and 6 cubic centimeters (30 and 40 centigrammes of creosote), respectively, each day, had been given, all the symptoms of the fœtid

bronchitis definitively disappeared. The patient had, consequently, in the course of four days, absorbed 1 gramme of creosote by hypodermatic adminis-

tration, without the least toxic effect. About ten minutes after each injection his breath smelled strongly of creosote. —*Amer. Med. Clin. Bull.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

January 24, to February 6, 1895: *Robertson, Capt. Reuben L.*, Assistant Surgeon. The leave of absence granted Capt. Reuben L. Robertson, Assistant Surgeon, is further extended fourteen days.

Kennedy, 1st Lieut. James M., Assistant Surgeon. The leave of absence on account of sickness granted 1st Lieutenant James M. Kennedy, Assistant Surgeon, is extended one month on account of sickness.

Stiles, 1st Lieut. Henry R., Assistant Surgeon. The extension of leave of absence on account of sickness granted 1st Lieut. Henry R. Stiles, Assistant Surgeon, is still further extended two months on surgeon's certificate of disability.

Morris, Capt. Edward R., Assistant

Surgeon. Leave of absence for 21 days, to take effect upon being relieved from duty at Fort Warren, Massachusetts, is granted Capt. Edward R. Morris, Assistant Surgeon.

THE NAVY.

Two weeks ending February 9, 1895: *Bagg, C. P.*, Assistant Surgeon, detached from U. S. S. "Mohican" and ordered to the Naval Hospital, Mare Island, Cal.

Brathwaite, F. G., Assistant Surgeon, detached from Naval Hospital, New York, and ordered to examination preliminary to promotion.

Stoughton, James, Assistant Surgeon, ordered to examination preliminary to promotion.

MARINE HOSPITAL SERVICE.

For the sixteen days ending Jan. 31, 1895:

Austin, H. W., Surgeon, to proceed to New Bedford, Mass., as Inspector, January 18, 1895.

Miscellaneous Items.

Dr. V. P. Gidney has resigned his professorship in the New York Polyclinic.

Dr. J. R. Alexander, formerly of Croft, N. C., is now located at Lucia, North Carolina.

A correspondent writing from Yuma, Arizona, says, in speaking of the temperature of that place: "They say a soldier died here once and went to hell—there's nothing remarkable in that—and in a few days reappeared and asked for blankets."

Antitoxine can be obtained from the following agents and manufacturers: Messrs. Schulze-Berge & Koechl, 79 Murray St., New York; Messrs. Lehn & Fink, New York; and the Pasteur Institute, New York.

The 20th Annual Meeting of the American Academy of Medicine will be held in one of the buildings of the Johns Hopkins University, Baltimore, on Saturday, May 4th, and Monday, May 6th, 1895. Members of the profession and others who may be interested in the topics treated by the

papers, are cordially invited to attend the open sessions of the Academy. A score of excellent papers have been promised.

Prof. Edwin Klebs, who has been at Asheville for several months, will begin soon the production of "antiphthisin" at the laboratory of Dr. von Ruck's Sanitarium. Antiphthisin is an extract of tuberculin, being claimed as the agent which produces the beneficial action of tuberculin, but is free from the tox-albumen that cause the unfavorable symptoms which have

brought tuberculin into disrepute. It can be given by hypodermatic injection or by enema, and is free from all danger. The dose is much larger than the dose of tuberculin.

We are in receipt of an interesting booklet, entitled *Surgery 200 Years Ago*. It contains illustrations and descriptions of surgical instruments and operations two centuries ago. It is sent out by the Antikamnia Chemical Co., and gives some of the therapeutic uses of their popular remedy.

Reading Notices.

CYSTITIS AND METRITIS.—W. Warwick, M.D., King's Coll. Aberd., M. R. C. S., Eng., 1851, L. M. Roy. Coll., Belf., 1849, etc., Belfast, Ireland, says: "I have given SANMETTO a very good trial in cystitis and metritis, and the results have been most satisfactory. I do not know another remedy which I can rely on for such uniform good results in affections of the genito-urinary organs."

RUSSIA'S EMPRESS GAINS STRENGTH.—The producers of "Mariani Wine" (Vin Mariani) should, according to report, soon have a splendid market in Russia for their nerve and brain tonic, as the Dowager Empress has, at the suggestion of the Princess of Wales, drunk it since the death of her consort, with the most remarkable and beneficial results. It seems that her Majesty is one of the many delicate persons with whom stimulating drugs like quinine, iron and Peruvian bark disagree, but such is not the case with the wine tonic referred to. It is well-known that the Princess of Wales also derived increased strength of brains and nerves from it during her last great trials. Moreover, in consequence of the benefits obtained by the Empress, a great demand for this tonic

has sprung up among ladies of Russian aristocracy suffering from nerves. —*The Court Journal*, London, January 12, 1895.

SUCCUS ALTERANS IN ENGLAND.—Dr. William Richard Goodfellow, M. R. C. S., Roche, Cornwall, England, L. S. A. (London Hospital, Surgeon Roche and St. Anstell United Mines), says: "I have used in practice the preparation known as *Succus Alterans*, and have much pleasure in bearing testimony to its great value. For diseases having their origin in a syphilitic source, I believe *Succus Alterans* to be the one reliable specific, for I may add that invariable success has been met with by me when prescribing the remedy in question, even after the failure of other alteratives. I shall continue to rely on the *Succus Alterans* in all cases I have indicated herein.—*Medical Reprints*, London.

Celerina and Aletris Cordial, equal parts, teaspoonful every four hours, will relieve ovarian neuralgia.

Headache in childhood is rapidly relieved by Celerina in doses of ten minims four times a day.

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Original Communications.

THE TREATMENT OF SQUINT IN THE YOUNG.

BY W. H. WAKEFIELD, M.D., Charlotte, N. C.

Every abnormal condition of any bodily organ owes its existence to some cause operating certainly in the past and possibly in the present. The wise physician, in treating diseased conditions or deformities of the body, seeks for the cause of these things with the view of removing it, or, failing in its removal, to counteract its effects.

It certainly should require no argument to convince a reasoning mind that the former procedure—the removal of the cause—is to be preferred to the latter—the mere counteracting of the effects of the cause.

It is a matter of observation that cases of Convergent Strabismus (eyes turned in) are more numerous among us than those of Divergent Strabismus (eyes turned out).

It is also a fact, well known to oculists, that many more of our American

people are far-sighted than are near-sighted. This fact had been observed by Donders before he made the announcement that far-sight is the cause of internal squint. Later, Stevens showed that weakness of the recti muscles has much to do with the causation of strabismus, and Savage has taken the theories of Donders and Stevens and shown how they act in concert to produce the conditions named.

It is now known that other causes must occasionally act in the production of squint, for cases of convergent squint have occurred in near-sighted eyes or in eyes having no refractive error, but the experience and testimony of many observers is to the effect that, while the theories of Donders and Stevens do not satisfactorily explain the occurrence of every case

of squint, they are true in the vast majority of instances. This being accepted as truth, is it not simple justice to our patients that operative measures be postponed, in the young, until the far-sightedness has been corrected a few months by means of glasses, and the strong, over-grown ciliary muscle reduced in power and activity by means of the combined action of the glasses and atropine? We expect hyperopia (far-sight) to diminish in amount as the child advances in years, and observation teaches that in some cases the squint grows less as the eyes approach the normal in refraction.

In these cases, if the muscles be cut before fitting glasses and waiting for their effect, the eyes will surely turn outward when the little patient approaches maturity; then the second condition is worse than the first.

In many cases of squint, under the age of 12 or 14 years, the muscles must eventually be cut to remove all the deformity, but in a greater number no operative measures will be needed if proper treatment by means of glasses, atropine and gymnastics applied to the weak muscles be commenced in time and properly carried out.

If hyperopia, associated with weak external recti muscles, cause convergent squint, the correction of the first by means of proper convex glasses, and the removal of the second by gymnastics directed to the weak muscles, would seem to be the rational means of treatment. It is tedious, but in my hands this treatment has resulted in such a high percentage of cures that I positively refuse to operate on young eyes without first giving it

a thorough trial. I can illustrate the method best by citing a few cases.

Case 1.—Annie —, age 13. She complains of severe headaches when studying—the left eye has been crossed inward for several years. Vision of right eye 20—20; vision of left 20—100; not improved by glasses in either eye.

Atropine was now used and vision was reduced in right to 20—100 and in left it remained as at first. With glass sph. plus 2.25 combined with cyl. plus .50 at axis 80° vision in right was 20—20. No glass improved the left eye. She was given for constant use before the right eye sph. plus 1.75 and cyl. plus .50. This was worn constantly and a 2-gr. solution of atropine was dropped in the eyes twice daily for two weeks.

Result.—In less than two weeks the eyes were straight and have remained so. The child is able to attend school and studies with comfort.

Case 2.—C. W., age 11. She comes with a history of headache if the eyes are used at near work. Cannot attend school regularly. Internal squint, the left eye turning in markedly.

Vision in right eye 20—30, while in the left it is reduced to mere counting of fingers at three feet. Atropine was used and vision in right fell to 20—100. With glass sph. plus 3.50 and cyl. .75, axis 130 it was 20—30. The left was not helped by any glass. A glass .50 less than full correction was given this child, and, as her parents were very anxious to send her to school, no atropine was used later. Her father writes four months afterward that the eyes are now nearly straight; that one must look closely to detect anything wrong with the eyes. I have no doubt if atropine had been used a month or so the eyes would now be quite straight.

These two cases were certainly not favorable for the trial of this treatment on account of each having one eye in which vision was very poor, but the results were very gratifying.

Case 3.—R. D., age 9. He comes complaining of headaches and inability to study. Internal squint. Vision is in right 20—40, in left 20—50.

Under atropine vision in right is 20—100 and in left 20—125. With glass sph. plus 3 and cyl. .75 axis 180 vision is 20—25 in right, and with glass sph. plus 3 and cyl. 1.25 axis 130 it is 20—50 in the left. Glasses a little weaker than these were provided him for constant use. He lost three days from school and his squint disappeared in less than a week. It returns when he removes his glasses. In this case gymnastics applied to the weak external recti muscles should be used, but as he is comfortable his parents desire "to try the glasses alone for a while."

Case 4.—Katie —, age 10. Comes with history of headache and inability to use the eyes long at a time in reading. Divergent strabismus, left eye turning out on looking at a distance.

Vision was in right eye 20—20, not improved by any glass; in left 20—50, and could not be improved.

Under atropine vision was 20—100 and 20—150 in right and left eyes, respectively. Glass sph. plus 2 increases vision in right to 20—20 and sph. plus 3 with cyl. 75 axis 90 makes vision in left 20—50.

She was given for right sph. plus .75 and for left sph. plus 1.25 with cyl. .75 axis 90 and instructed to wear them constantly. The weak internal recti muscles were exercised three times daily by means of Savage's exercise set of prisms. The result is all that

could be desired. In a few weeks relief from the headache came and the patient was enabled to study in comfort. The squint disappeared in about five weeks and has not returned. She continued to exercise these muscles nearly one year before it was deemed best to discontinue their development.

Other histories could be added to the above, but no useful purpose would be served. These illustrate the method of treatment. During the last two years I have entirely relieved the strabismus in fully 50 per cent. of all cases treated in the manner as set forth, while a decided reduction in the amount of the squint, so as to lead us to expect a final cure, has taken place in about 25 per cent. and of the remaining cases all were much benefited excepting one case. Of those not yet relieved but benefited, several have been under treatment too short a time to warrant giving up hope of a cure by these means and resorting to an operation.

After a squint has existed for several years and the patient has reached 15 or 16 years of age, it is, in my judgment, useless to attempt a cure without operating, but during the tender years of childhood and early youth operative measures should be deferred until the means set forth in this paper have been given full opportunity to correct the deformity.

DIPHTHERIA IN LONDON DURING 1894.—During the year 1894 there were 13,694 cases of diphtheria reported in London, with 3,195 deaths, as against 1,962 deaths in the previous year.—*Ex.*

SOME STATEMENTS AND QUESTIONS ABOUT THE ÆTIOLOGY AND TREATMENT OF MALARIA.

By J. S. BROWN, M.D., Bear Poplar, N. C.

Finding that in my practice I meet with more cases of malaria than of any other single disease, and that my success with it has not been satisfactory, I wish to state the conditions and ask the advice of such members of the fraternity as have satisfactorily treated its various forms with their innumerable symptoms and complications.

My practice is in an undulating territory abundantly watered by creeks and branches which form a net-work over the surface, seldom allowing a square mile to stand in one undivided section. The ridges or highlands between the streams are usually from fifty to two hundred feet above the level of the creek beds. The cultivated area amounts to nearly half of the upland and perhaps to a larger part of the bottom land. Oak, hickory and pine forests are plentiful. Decaying logs and brush are seen on all sides, and leaves in all stages of decomposition cover the ground too thickly to allow the growth of much vegetation other than shrubbery, which has become much more dense since the introduction of the stock law. In the bottoms there is some ash, maple and willow timber, and a large quantity of shrubbery and briers and coarse weeds and grasses, in addition to abundant native meadow grass of good quality. Marshes of one-fourth to five acres and stagnant channels are not uncommon.

Perhaps one-half of the drinking-water is procured from bored wells. These are usually from twenty-five to sixty feet deep and curbed with heart-

pine. About one-third of the water is obtained from dug wells of similar depth and usually walled with rock. The remaining sixth of the water used is from surface springs at the foot of hills. The water from wells and springs is usually clear, cold and apparently as pure as that in the mountains. However, there are exceptions to this general condition. The well-water is seldom influenced by continued rains; but the water in many wells is one to four feet lower in the early part of autumn than at the beginning of spring.

Ordinarily the people on the ridges believed that their locations had given them immunity against malaria. In fact, chills and malarial fevers have generally been less prevalent in these higher regions; but during the past seven months we have suffered an unusual prevalence of malaria from which ridge-dwellers seemed no better protected than the inhabitants of lower lands.

In tabulating over a hundred and fifty cases, I find that about one-half used water from bored wells, one-third from dug wells and one-sixth from springs. This was contrary to my personal prejudice in favor of water from rock-walled dug wells.

Nearly three per cent. of these cases were fatal. Two died of pernicious attacks of less than two days duration. Three used water from bored wells; the other two used water from dug wells.

Of the whole number of cases,

nearly forty per cent. suffered a return of the disease within from one week to five months. Returns were more frequent in those who had suffered from the intermittent form, possibly because of less patient and thorough treatment.

My routine practice, from which there were many deviations, has been for the intermittent form: (1) A mercurial purgative. (2) Quinine in six-grain doses begun twelve to twenty hours before an expected paroxysm. (3) Acetanilide to modify the unpleasant symptoms after the paroxysm, and (4) A pill of iron, quinine, arsenic and strychnine three times a day for about ten days. In the continued forms and in some of the remittent forms quinine was given about every four hours. Besides these remedies, I have used with questionable success capsicum, piperine, hydrastine, hydrochloric and nitric acids, eucalyptus, iodides and other drugs. In a few cases of chronic malarial poisoning I think hydriodic acid gave good results.

The chronically enlarged viscera seemed to yield to its influence and return to their normal size and activity. Eucalyptus seemed to act favorably in cases complicated with disorders of the urinary-tract.

I wish to ask: (1) Is the method of invasion by the plasmodium malariae uniformly through the alimentary canal? (2) By what channels save by drinking-water does it usually effect an entrance into the system? (3) What constitutes the best prophylactic treatment aside from removal to non-malarial regions? (4) Can we rely solely upon quinine to effect a permanent cure? (5) If not, what other remedies are most reliable, either alone or synergistic with quinine? (6) How long should your most reliable remedies be exhibited in order to prevent a return? (7) What is the best method of procedure in a case of pernicious malaria?

I hope to be much benefited by the answers to these questions.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

February 12, 1895.

Dr. Landon B. Edwards was the leader in the subject for the evening,

THE THERAPEUTICS OF GOUT, URIC ACID DIATHESIS, GRAVEL, ETC.,

the whole subject of Gout, however, being open for discussion.

Dr. Edwards said: Poor man's gout is due to half-masticated food, washed down by draughts of heavy beer, and to lack of exercise. Gout may also be caused by lead. An excess of highly

seasoned food, in fact, excess of any kind, directly predisposes to it. The disease implicates oftenest the nervous system. Of course, it is directly due to the increased formation or diminished elimination of uric acid. There are strong reasons for attributing to the liver the chief part in the formation of urea. So long as this organ is active, the kidney carried it off; but if, for any reason, the kidneys and liver do not perform their duties, re-

tention of uric acid occurs and the result may be manifested in gout, regular or irregular, with its attendant symptoms; in the formation of tophi or calculi, renal or vesical.

Treatment.—Children of gouty parents must do more than live temperately, both as regards food and drink. They must take plenty of exercise. An indication for treatment is to prevent catarrhal conditions of the urinary tract. Use milk and an abundance of alkaline waters. In the growing child use fish, eggs, cereals, etc. Avoid over-eating, especially highly seasoned food and dark meats. Clothing must be suited to the season.

Medicinal.—In the examination of the urine extractions should be looked for, as well as uric acid and albumen. For constipation nothing is better than cascara. In the beginning of the attack use moderate doses, 12 to 15 drops of the wine or tincture of colchicum seed night and morning. Aconite in drop doses may be combined with it. The action of colchicum varies according to idiosyncrasy, some people being able to take a teaspoonful without discomfort, while small drop-doses in others produce fatal effects; and in any event, the vomiting which may occur is objectionable. Salicylate of sodium is a specific in this disease and more—it assists in the elimination of uric acid first, and then prevents its further formation. It shows its virtue in preventing both acute and chronic gout.

During the intervals no one medicine excels iodide of potassium in small doses and at long intervals. For neurotic troubles, during the intervals, use dilute solutions of phosphate of sodium. Especial value is attributed

to the use of the lithium salts. I have confidence in the lithia waters, especially for the results of gout. I have no doubt that calculi can be reduced in the system and washed out by the urine. A case occurring in my practice is in point. The man claimed descent from noblemen. The father was a gourmand and beer-drinker, and his children had gout and renal calculus. In one child the latter was pronounced. Operation was decided. The diet was restricted, Buffalo Lithia Water prescribed, and in a few days the urine was better, calculi passed, all symptoms disappeared, and, so far as I know, never reappeared. The effect of lithium and allied salts is to alkalinize the blood. It is proved by authorities that waters containing even but traces of lithium possess solvent action on uric acid gravel and tophi. In one report 73 per cent. of the cases collected showed solution of stone, and in the balance crushing was facilitated.

DISCUSSION.

Dr. Hugh M. Taylor: Dr. Edwards said in order to be free of gout, one must be poor. Now, according to authorities, the rich man has gout, but his child is free from it; the poor man is free, but his child has it. The reason is, the rich man's child has his food carefully selected, is given opportunities for taking all the exercise he wishes and has no anxiety whatever. The poor man, although he eats indigestible, proteid food and drinks heavy beer, is obliged to labor for his living. This child is scantily clothed, lives in unsanitary dwellings and his food is not alone scanty, but indigestible. I have often been struck with the fact that

vesical calculus is uncommon in the negro, and can recall but one case in the whole race, and that was in my practice. The explanation is the same as in the case of the poor man, but I cannot understand why the child is exempt.

Dr. Jacob Micaux: I am struck by Dr. Edwards' statement as to the small quantities of salts acting favorably. If the doses are full, the stomach revolts, and especially is this true of the salts of lithium. We forget that we are injuring the digestive functions in giving large doses of alkali. The success of the mineral waters is due to the small amounts of the salts they contain and to the fact that patients take them instead of water.

Dr. J. S. Wellford: In the uric acid diathesis there is not sufficient metabolism. I contend that rheumatism and gout are but different phases of the same thing. I don't believe in the lactic acid theory, and I hold that lithæmia is a blood-poisoning due to uric acid, the same being true in the sequelæ of scarlet fever, and in dysmenorrhœa, most particularly in the latter, if the patient has gouty parents. In one case in my practice the patient was free during the reproductive period; but as soon as the menopause came on gout manifested itself. Whenever a person is making more nitrogenous matter than he can dispose of, gouty symptoms occur. The skin plays an important part in elimination, as do the liver, intestines, etc. If, for any reason, they do not act, extra labor is thrown on the kidneys and susceptibility to gout occurs.

My theory as to the cause of vascular and cardiac complications and sequelæ is, the lining membrane of the

left side of the heart and of the arteries is intended for alkaline fluid; that of the right side and veins for acid. As soon as the blood, for any reason, becomes acid, the arteries and left side are affected and we have arteritis, cardiac palpitation, angina and valvular trouble. We never have phlebitis in gout. As to the joints, they have less circulation than other parts of the body and the blood is less alkaline. They are therefore disposed to stagnation and deposit.

Anything producing increased quantities of nitrogen or lessened metabolism, creates gout. After the food is taken in, digested, assimilated, it is rendered effete and thrown into the venous system. Prior to, and during this time, it undergoes chemical changes and leucomaines are formed. Urea is the first of these, then uric acid, and, if indigestion occur, oxalic acid.

A number of people have gout because they do not take enough water, the uric acid being too concentrated.

In the *treatment* of gout I am of the opinion that mischief may be done in trying to relieve too suddenly by stopping elimination, and confirmed gout may result. Oil of peppermint is the best local application I have tried. It is soothing and aids in the solution of the acid. In constitutional treatment, don't use much opium, for the reason given above; it prevented elimination of the acid. Of the alkalies, the salicylates, to a certain extent, are the best, especially that of potash. I believe the mineral waters subserve a useful purpose by flushing, and am satisfied that I have saved myself frequently from attacks of gout by the free ingestion of water. Theoretically,

lithium ought to be the best article in gout; but, in my experience, I have not found it of half the value of potash, the urate of the latter being more soluble. All of the potash salts are diuretic; soda, colagogic. The main treatment should be in diet and exercise. The reason we have so much more gout now than previously, is to be found in the use of the street-cars, and, in the case of physicians, buggies. The diet must be regulated by the individual. No hard and fast lines can be set down. Let it be liberal. Diminish the nitrogenous food and liquors, or if the latter must be used, give good whiskey. Use carbohydrates.

Dr. Mark W. Peyser referred to the connection between the leucocytes and uric acid. The acid is related closely to the extractives xanthin, sarkin, guanin, adenin, etc. Spleen nuclein does not contain uric acid nor these, but it does contain the mother-substance from which they may be made; the acid being formed in the presence of an oxidizing substance, the others being formed in its absence. The nuclein is derived from the colorless corpuscles and the amount of urea and uric acid formed is a measurer of nuclein metabolism. Any condition, then, which produces leucocytosis, increases the production of uric acid. Hence, we see it when a large amount of proteid food is taken in, in leucocythæmia, phosphorus poisoning, acute febrile diseases (especially pneumonia) in infants, pernicious anæmia, etc.

The Doctor referred to the intimate relation existing between gout and diabetes mellitus and Packaid in Hare's System of Therapeutics, was quoted in regard to it. This authority cites a table, given by Charcot, showing that

in three generations of one family the first contained a gouty individual, the second four gouty and four diabetics, and the third one gouty.

Dr. E. C. Levy mentioned a case illustrating the effect of diminished ingestion of liquids, which was speedily relieved by the free use of water.

The reason that carbohydrates are not advised, said the Doctor, is because of the large amount of oxygen required for their oxidation. He has had good results in the use of piperazine.

Dr. Edwards, in closing the discussion, said that, beginning with 1875, we could trace developing cases of gout. From 1860 to 1875 it was rare to hear of it because of the struggle necessary for livelihood.

Piperazine has been tried and found wanting, clinically. The chemist, in his laboratory, found it perfect. Medical treatment should be tentative; anemas being given in small doses. Large doses of colchicum cause stomach troubles and are not inapt to produce death. I am, he said, in accord with Dr. Wellford as to relieving too suddenly. The salicylates act as solvents, and not as the physiologists wished them to do. They are, by far, the best remedies in the production of cure. As to diet, avoid tomatoes, on account of the oxalic acid contained in them.

The presence of uric acid in the blood, greater than 1 to 6,000, will cause its precipitation and gout—1 to 7,000 gives rise to the formation of crystals and the manifestation of gouty symptoms. Beyond this amount, it has no effect. Dr. Wellford spoke of uric acid as a leucomaine. According to Roberts, hypodermic injection of it does not produce gout, and he (Roberts)

says it is the mechanical action that gives rise to disease.

REPORTS OF CASES.

Dr. Michaux said he reported the following merely to go back to the subject for the evening's discussion:

Male.—The first attack had been so sudden and severe that the patient thought he had been bitten by a spider; but subsequent attacks showed the nature of the malady. The diet was regulated, but the patient was imprudent. Finally, salicylate of sodium, with small doses of colchicum and

aconite, was administered, and the case progressed favorably.

I am of the opinion, said the Doctor, that colchicum should be given in moderate doses short of its purgative action.

Speaking of the injection of uric acid, I should hardly expect it to produce gout in the healthy individual, because the blood is alkaline and all the emunctories are in perfect action.

In threatened attacks I have employed free purgation, with salines, with happy results.

THE LOUISVILLE (KY.) SURGICAL SOCIETY.

Dr. W. L. Rodman read a paper entitled

FRACTURE OF THE ANTERIOR SPINOUS PROCESS OF THE ILIUM FROM MUSCULAR CONTRACTION.

This young man, 17 years of age, while playing foot-ball ten weeks ago, sustained a fracture of the right anterior superior spinous process of the ilium as a result of muscular contraction. It was one of the plainest cases of fracture that I have ever seen; you could take the process and move it to and fro at will; there can be no question whatever about the diagnosis.

While I have seen a great many fractures about the pelvis as a result of crushing violence, this is the only case which has occurred in my own practice or in the practice of any of my friends, so far as I know, as the result of muscular contraction. Investigation of the subject shows that these cases are exceedingly rare, very few of

them being upon record. I believe the fracture in this case is plainly due to contraction of the tensor vaginæ femoris muscle. The history is that he was running rapidly at the head of the "pack" of foot-ball players, when he felt a sharp pain at the point of fracture and found that he was unable to walk and was taken home. He had not fallen and had received no blow in this situation, so that the fracture was clearly from muscular contraction.

The next paper was a report of a CASE OF FRACTURE COMPLICATED WITH HIP DISEASE,

by Dr. Ap. Morgan Vance.

Ten days ago I saw a man æt. 42 years, who was the subject of chronic hip disease, with ankylosis of the hip at right angles, with adduction very marked, with four or five inches shortening as a result. He was kicked by a horse on the inside of the knee, the

shoe opening the knee-joint. Quite an excessive hemorrhage occurred, probably from one of the articular vessels, also producing a fracture of the thigh at about the junction of the lower with the middle third. But the point to which I want to call particular attention is the difficulty experienced in applying the proper treatment. The relationship of the pelvis prevented any plaster dressing being applied except to the groin, and necessitated his remaining in the sitting posture, because if we had extended the limb it would have been necessary to have raised it up at right angles to the trunk, otherwise an angle would have occurred at the point of the fracture. I put on a plaster dressing from the groin to the lower third of the leg with Buck extension, and have kept the man sitting up since that time. The wound of the knee-joint discharged a great deal of synovial fluid, much more, I think, than the natural contents of the joint; a great deal of blood was also extravasated.

The man has gotten along for ten days without a bad symptom. I redressed the leg on the eighth day, and the wound of the knee-joint had closed perfectly without any inflammation at all. It is the first fracture I have ever seen complicated in this way, and the difficulties in giving it proper care were very great.

DISCUSSION.

Dr. H. H. Grant: Did the man have any use of his leg?

Dr. A. M. Vance: He could walk reasonably well. He is a livery-stable-keeper and a very active man. The wound of the knee-joint was, of course, a very severe injury in itself, but it has

been very difficult to manage the fracture on account of its being complicated with the old hip trouble.

I hope to keep the patient quiet long enough for union to take place. I do not know how I could have managed otherwise than I have done; I might have kept him on the side, but this would have been very irksome.

Dr. W. L. Rodman: I happen to have seen this case, being the surgical representative of the Accident Company in which the man was insured. It is certainly a very remarkable case, and one very difficult to treat. I am glad that he is getting along so well as the Doctor states he is doing.

Dr. A. Morgan Cartledge reported the following case:

FRACTURE OF THE THIGH.

Sunday morning I was called to see a case of fracture which presented a peculiar condition. A boy, in climbing up on a wagon, had become entangled in a wheel, and his thigh was broken; he was taken to his home and I saw him about an hour later. The remarkable attitude of the leg was the first thing that attracted my attention; the boy was sitting on the side of the bed and his leg presented at almost right angles with his thigh laterally. He had not been undressed when I arrived; I cut his pants and ripped them up, and was uable to discover the slightest break in the skin, although it was enormously distended on the inner side. There proved to be a very curious condition of affairs. Evidently fracture of the epiphysis had allowed a separation at the lower extremity of the femur, so that the inner condyle was entirely separated, allowing the leg to turn out at right angles; as I

say, the internal lateral ligament had been so put on the stretch that this loose fragment was very difficult to reduce, as is often the case after fracture of the femur and separation of the epiphysis. But after flexing the leg it came out very nicely, and the loose fragment of the inner condyle was put back in position. The leg was then put up in the usual dressing. It is the second case I have seen where there was fracture of the inner condyle, allowing separation in this manner.

DISCUSSION.

Dr. W. O. Roberts: Was there a rupture back into the popliteal space?

Dr. A. M. Cartledge: There was an immense hematoma on the inner side, and in moving the boy to the table I was very careful, as I did not wish to cause it to break through the skin.

Dr. H. H. Grant: Was the external condyle displaced?

Dr. A. M. Cartledge: The external condyle was slightly displaced, but I succeeded in replacing it.

Dr. William L. Rodman presented the next paper, as follows:

INCOMPLETE EXTERNAL ANAL FISTULA.

I have recently had under observation a case which is somewhat unusual.

It was a case of incomplete external anal fistula, which was operated upon a few days ago, the first one I have seen for some time. After the most careful examination on two occasions, I failed to detect any internal opening, and at the operation, when a careful dissection was made, none was discovered. I simply mention the case as being rather unusual, the first I have seen for several years. She was once unsuccessfully operated upon at her home in Texas.

DISCUSSION.

Dr. W. O. Roberts: What operation did you perform?

Dr. W. L. Rodman: I made it a complete fistula, just as I believe Dr. Mathews has always done. I have always operated by this method where there was an incomplete fistula, making a careful dissection down to the gut.

Dr. J. M. Mathews: I would only say that I have taken the position very often, and I think it can be maintained, that a great many fistulæ exist without any internal opening. I have never been anxious about the internal opening; if one exists it can easily be found at the time of the operation. Had there been one in the case Dr. Rodman reports, he would have found it at the operation.

Selected Papers.

DEFECTS IN SURGERY AS TAUGHT AND PRACTICED AT THE PRESENT TIME.*

BY ALEX. J. C. SKENE, M.D.

It occurs to me at this moment that the title of my paper should have been

*Read before the Medical Society of the County of Kings, April 17, 1894.—*Brooklyn Medical Journal*.

"Defects in Operative Surgery as Some of Us Teach and Practice it at the Present Time." It would savor of arrogance to criticise the work of all others in a branch of the healing art

which is at this time upon the crest of the highest wave of progress. But it may be proper that I should call attention to some of the imperfections of my own efforts. And if, perchance, there are others who have been doing as I have done, they will enjoy the interest which comes from having company on this occasion. I may claim to be in some degree prepared for the task of the present hour, by my experience. The most unkindly disposed, I feel sure, will grant that I have done my share of poor work, and I hope that I have profited by my failures. I may say to those who have the good fortune to be satisfied with their own achievements, that they will find an opportunity to point out to us who are less fortunate the means and ways to higher attainments.

The lack of dexterity and accuracy, which leads to slow and consequently imperfect operating, is the most noticeable defect of our times. Rapid operating is essential and imperative. Every moment wasted in an operation is a detriment to the patient as well as the surgeon. Operations that are quite well done are done quickly, as a rule. Slow operating is generally imperfect. It is often said that a quarter of an hour, more or less in the duration of an operation, makes very little difference. This I conceive to be a very great error, and I desire to submit some reasons for the belief which I entertain, in order that they may meet your approval or condemnation.

Rapidity of operating is especially necessary in order to avoid prolonged anæsthesia. All anæsthetics are injurious and tend to retard recovery from operations and impair the health of patients subsequently. The longer one

is kept in a state of anæsthesia the more harm is done. I remember that the celebrated Frank H. Hamilton was very positive in his views on this subject. He laid great stress upon the effect of anæsthetics in retarding recovery. I heard him say that when his two sons went into the army he told them that, if they had the misfortune to be wounded, and required surgical treatment, he hoped they would be brave and submit without an anæsthetic.

Patients in fair general condition will take care of ligatures and bruised tissue, but there is a limit to this reparative power and the less that it is taxed the better, of course.

Again, time is precious, because the longer the tissues are exposed and the more they are handled, the more slowly and imperfectly they heal. Tissues exposed to the air for an hour or more begin preparation for healing by granulation, and are therefore less capable of uniting by immediate union. The sooner that incised tissues are brought together, the less time it will take for them to unite. Tissues that have been bruised and lacerated by rough handling, are likely to break down and become necrotic, and hence union will not only be delayed, but there is a decided danger of suppuration occurring, although the operation may have been most thoroughly aseptic. In the dressing of such wounds in which the tissues have been injured, it is necessary to employ drainage in order to avoid suppuration and sepsis, and this renders an operation to a large extent defective. Especially are non-union, suppuration and sepsis likely to follow if the patient has been intoxicated for a long time by the use of the anæsthetic;

and, unfortunately, prolonged anæsthetics and unnecessary injury of tissues usually come together. These views regarding results, which I claim are apt to follow delayed or slow operations, are based upon my own observations, and being well aware that many surgeons may take exception, it may be well to add some of the reasons upon which my opinions are based.

First, it has been observed that some surgeons who are not very cleanly, but do their work quickly and accurately, obtain nearly as good results as those who are thoroughly aseptic in operating, but slow, awkward and defective in technique. This has led some to disregard sepsis and antiseptics, and is the only reason that I can find for their ignoring these essential principles of modern surgery.

Further evidence against delay in operating has been obtained from a careful study of certain results which are not, as a rule, brought out in the statistics of operations that are usually published. I feel somewhat confident that defective statistics have led surgeons astray by showing the great gain through modern methods, chiefly aseptic and antiseptic management, but at the same time keeping out of sight certain evils which have come with them. As soon as the germ theory of disease was fully evolved, the majority of surgeons contented themselves in successfully battling with these germs which interfered with the healing of wounds; and in many cases, no doubt, this aseptic practice has been pushed to the extreme and to the exclusion of other essentials in successful operating. Most of our statistics are based upon the death-rate after major operations, and they show what wonderful pro-

gress has been made in this age in the way of saving life and relieving suffering. But the difference in the time of convalescence and the degree of health restored are seldom noticed. Now, we all know that two patients may survive a certain operation, but one is restored to perfect health in a few weeks, and with very little suffering, while recovery in the other is twice or three times as long, and ultimately his health is not completely restored. This difference between the results of the best surgery cannot be determined by the death-rate, but by the difference in the time of convalescence, and the degree of health attained should be taken into account. One who is kept in misery and suffering for an unnecessary length of time, because of defective surgery, may be considered dead for the time being. Certainly the time that one is disabled and suffering should be deducted from his time of life and placed to his credit as time after death. Imperfect recovery after operations is familiar to those who have seen a number of subjects who may have been reported cured, simply because they survived operation, but really are as miserable as before losing portions of their structures. It is only by weighing carefully all the facts, that one can compare the results of good surgery with that which is imperfect. From such data I have drawn the conclusions now presented.

Within the last thirty or forty years surgery has advanced faster and further than anything else in our profession, and not in the science only, but in the useful and life-saving. At the same time the art of operating has been stationary, and if the work of all operators is taken into account, it has

decidedly lost ground. I will hazard the statement, for the sake of provoking discussion, that surgeons, taken in the aggregate, do not operate as well as they did before the age of anæsthetics and aseptics. Far more operating is done, better ultimate results are obtained, and more lives are saved, and much suffering is avoided, but not from better operating, but other improvements. Operations at the present time are frequently studies in surgery, upon the living subject, the operator learning how to manipulate as he proceeds with his work. This was not possible before the discovery of anæsthetics; and although the results are often fairly good when done by the student in surgery, they are not what they might and should be. A study in art, laboriously produced after many trials, is far from being equal to a well-finished work by a master, who makes every touch effective. That this subject stands as it does at the present time is due to several causes, which may now be considered.

The introduction of anæsthetics and the knowledge of the germ theory in the etiology of disease are of inestimable value, the one in lessening human suffering, and the other in saving human life. Still I repeat that they are, I believe, responsible for much imperfect surgery. Along with the triumphs of modern surgery there is intimately interwoven, and perhaps growing out of this, the much-to-be-regretted fact that dexterity and accuracy in operating at the present time do not equal that of the age before æsthetic and aseptic surgery. The older surgeons, knowing well that a conscious patient would not bear the slow experimental practice that we

sometimes see at the present day, thoroughly qualified themselves, by practice upon the cadaver and otherwise, to operate with rapidity and accuracy. To-day the surgeon does not hesitate to operate upon the anæsthetized subject, although he may not be very sure of what to do or how to do it. While this by no means applies to the consummate surgeon at the present time, it holds true with many of us.

Again, since the introduction of antiseptic surgery, with its marvellous results, the surgeon is enabled to undertake exploratory and experimental operations which no one would have dared to do a few years ago. The field has been rapidly enlarged, and hence there has been more room for the defects, and the power to act has hardly kept up in growth with the extension of the field of action.

I fully appreciate all the advantages of cleanliness in surgery, but there is little doubt that it is not yet perfect, and even when adopting the most approved plans and carrying them out in every detail, so far as it is possible, there are still loopholes through which germs may enter and mar or modify the surgeon's work, and if it is granted that there is the slightest possibility of septic infection in geueral practice, it follows that the danger is increased in proportion to the time of exposure of wounds. The surgeon can hardly feel safe under any circumstances in leisurely doing his work. The scrupulous care that is necessary in managing instruments, patients, assistants and the surgeon himself, renders this part of operative surgery exceedingly intricate and complicated; so it is almost impossible to secure absolute protection,

although the rules of aseptic surgery are accurate in themselves. Imperfection here arises from the endless detail necessary, which in itself makes it difficult to attain perfection.

There is still room for improvement in the way of simplification. Perhaps the most important element in the process of making things clean is the sterilization of instruments, sponges, operating room, everything which comes in contact with the subject operated upon, and were it possible to sterilize patients, their clothing, assistants and the surgeon himself, inside and out, a greater degree of safety would be practicable, but as that is difficult, there is yet room for improvement in this respect.

In the way of illustration, I may refer briefly to the matter of cleansing the hands of the operator. The very fact that there are so many ways recommended and practiced is rather an evidence that none of them is perfect. Perhaps Kelly's method is as near perfection as anything that has been offered, but that imposes such a burden and task upon the surgeon that, if he has much to do, as he certainly ought to have to acquire skill, his time and his hands very soon become used up. One of the torments of the surgeon is that his hands become so rough that if they are cleaned they never can be made to appear so, and certainly they are very uncomfortable to the possessor if he is required to operate many times every day. Some easy way of sterilizing the hands and keeping them in good condition has probably yet to be discovered. For the present I content myself with thoroughly scrubbing and washing my hands in soft-soap and running water; by so doing the

hands can be freed from all germs except those that are deeply imbedded in the skin or that may exist in the water supply. Germs can never be removed by any amount of washing and scrubbing in a basin of water, even if the water is changed many times. The running water does the work most effectually. After the washing the hands are immersed in a 5 per cent. solution of carbolic acid with about 20 per cent. of glycerine; the glycerine protects the hands from the caustic effect of the carbolic acid, and yet does not deprive the acid of its germicide effects.

I have only alluded to this subject to call attention to the fact that all these methods of guarding against germ infection in operating take so much time and involve so much detail that there are many chances for mistakes, and so the best may be still considered defective.

Viewing the matter from this standpoint, it appears that aseptic surgery is in part responsible for some inattention to manual and ocular training, so essential to good operating. These are, however, mixtures of good and evil, which must go together for a time, but in which the good so far surpasses the evil that we have every reason to hope that the evil will be eliminated in due time.

Another and less tolerable cause of defects, which arises through necessarily extending the domain of surgery, is the disposition of some men to strike out into new fields in the hope of suddenly gaining renown and rendering valuable service to the community. In the near past, and perhaps even, to a limited extent, at the present time, surgeons are often observed trying to

devise new operations and to modify, in the hope of improving old ones, while they are in black darkness regarding how to perform many of the operations that are known to be quite efficient and well-established by surgeons of the past and present. We forget sometimes that it is better to master the old and tried than to seek for something new and doubtful. The progressive surgeon should seek new operative procedures to meet certain indications heretofore unprovided for. He may also try modifications of old and well-established methods in the hope of improvement, but not until the old and tried things have been mastered and found wanting.

Another avenue through which defects occasionally creep into surgery is the endeavor on the part of some to cover altogether too much ground. If one endeavors to wrestle with the whole field of operative surgery, he finds such a number and variety of operations to do that one life is not long enough for him to perfect himself in them all. No doubt surgeons are sometimes compelled to do everything that comes to them. In the country and smaller cities specialists can hardly be developed, but in cities it is a fact that one can limit his field of action, and by so doing attain a perfection otherwise impossible. It is hardly possible that any one musician could become an expert performer on all the instruments of the orchestra. Even the leaders are incapable of acquiring such extraordinary versatility.

"The most insignificant man can be complete if he works within the limits of his capacities, innate or acquired; but even fine talents can be obscured, neutralized and destroyed by lack of

this indispensable requirement of symmetry. This is a mischief which will often occur in modern times; for who will be able to come up to the claims of an age so full and intense as this, and one, too, that moves so rapidly."

—*Goethe.*

I come now to the first part of my subject, as announced in the title, and that is, Defects in Teaching Surgery.

Since the days of Hunter and Syme, who first introduced the rational methods of teaching, clinical surgery, the knowledge of surgical diseases and injuries has been gradually developed and taught in a way that, in the main, has been very satisfactory. The subjects of diagnosis and indications for treatment have been well taught, and not until very recently has there been any falling off in the knowledge imparted in these departments. I presume that since this extraordinary age of operative surgery there has been a little less attention given to the questions of diagnosis and preparatory treatment than heretofore. This lapse has been aided by the fact that exploratory operations have been rendered justifiable and necessary for diagnostic purposes. It is just possible that this has been pushed a little beyond its legitimate limit. In fact, I have observed that, if one who is really skilled as a diagnostician fails to discover the real nature of a surgical disease, and makes an exploratory operation to complete his diagnosis, he is very liable to fail after all. In fact, it takes a much greater experience and a knowledge that is much more difficult to obtain, to make a diagnosis after a surgical operation than by the physical signs and clinical history, the basis of all diagnosis in former times.

It is mostly, however, the methods of teaching operative surgery that are most defective. It must be admitted that surgeons are to some extent like poets—they are born. But, unlike poets, they can be made, to a very large extent, by proper training. One must possess, by inheritance, good perception and co-ordinating power, in order to become a good operator; in other words, the artistic temperament, with mechanical gifts. Possessing these, the student, by proper training, can be made efficient. The greatest defect, it appears to me, in our methods of teaching surgeons, is inattention to manual training. A department of manual training has been established, I understand, in our public schools, or is to be established, in which good handicraftsmen are to be brought up. A similar department should be introduced into all our medical schools, so that students can be thoroughly drilled in the manual and mechanical art of surgery. Dissection, as now practiced, simply teaches anatomy. It would be better if more attention were given to the method of dissection, drilling the student thoroughly in the use of the knife and forceps and the handling of tissues.

Again, the practice of surgical operations upon the cadaver should be carried out to a far greater extent. I am inclined to believe that at this time, when infinitely more surgical operating is done than years ago, the practice of operations upon the cadaver is not practiced to anything like the extent that obtained in the past.

Another defect in teaching arises from surgeons endeavoring to teach

themselves and electing their own course of instruction. According to the natural evolution of surgical education, one should begin with minor operations and proceed to the major; but in many cases the order is reversed, the aspiring young surgeon beginning with the most difficult and dangerous, which certainly is not calculated to give the best results. To begin at the top of the ladder and descend is pretty sure to lead one to failure, while beginning at the first round and carefully climbing surely leads to better and brighter attainments. The teachers of surgery are certainly not responsible for the mishaps of those who choose to take their education in this way. One could hardly believe it possible that educated men could drift in such wrong directions; but I am sure that I have seen, and I have no doubt many of you have seen, men wrestling with the most difficult and dangerous operations, while actually they could not dexterously and neatly vaccinate a baby. A thorough drilling in manual dexterity in dissection and in minor operations, leads one to a point where he can benefit by witnessing experts operating. Much, indeed, can be taught in this way by example. Next in order should come assisting master operators, which is one way of obtaining practice.

One of the difficulties of the present time is to obtain assistant surgeons who will stick long enough to their work to become of value to their chief or obtain sufficient experience to enable them to do good work when they undertake to play the principal's part.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR

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Editorial.

THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

The time for the next meeting of the State Society is getting near at hand, and it is time that those who anticipate presenting papers at the meeting in Goldsboro, on the 14th of May, were getting them in proper shape. The last meeting may be said to have been a successful one, both as to the number in attendance and the amount and quality of the work done. We trust that the coming meeting may be no less so. The amount of work done at the last meeting is evidenced by the greatly increased size of the Transactions, which make a volume nearly double the size of that of the preceding meeting, and considerably larger than any volume the Society has ever pub-

lished. Notwithstanding this there were several papers, among them some very excellent ones, that were omitted, simply because the authors failed to deliver them to the Secretary. Authors of papers should remember that the laws of the Society require papers to be delivered to the Secretary before it shall be in order to refer them to the Publication Committee. Therefore if it is the desire of the author of a paper that his paper be published in the Transactions of the Society, he should deliver it to the Secretary immediately after reading it. Much unnecessary delay in publishing the Transactions is due to the holding back of papers by the authors.

The rule adopted at the last meeting to limit the reading of papers to twenty minutes, and to allow any

member only five minutes in the discussion, was a good one, and should be adopted at the coming meeting. There was one thing it developed, viz: that members had not learned the art of boiling down their essays. With the experience of last year fresh in their minds, they should succeed better this time.

The Society should include in its membership every reputable physician in the State, and each member should have the welfare of the Society at heart and use his influence to enlist as members those physicians of his acquaintance who have not before seen the importance of it. This is not simply for the sake of numbers, but that because when the whole profession is united they can exert greater influence, not only upon the Legislature for the enactment of wise and beneficent medical laws, but also upon the minds of the people at large.

We look with interest for the report of the Committee appointed at the last

meeting to consider the advisability of establishing the office of permanent Secretary, whose duties it shall be to receive and care for the exchange transactions from other societies and such other volumes as may be presented to the Society. The papers contained in these should be indexed, that they may be at the service of any member who may desire to refer to them, he paying cost of carriage both ways. Such a library as would be accumulated in a few years would prove of great service to members preparing papers upon special subjects and desiring to read the views of others.

The profession of Goldsboro, who showed so much earnestness in pressing their invitation for the Society to meet with them this year, will, without doubt, ensure a successful meeting, as far as the local arrangements are concerned, and we hope that the members of the Society will do their part in making the meeting useful as well as pleasant.

Reviews and Book Notices.

The Principles of Surgery and Surgical Pathology. General Rules Governing Operations and the Application of Dressings. By Dr. Hermann Tillmann, Professor in the University of Leipzig. Translated from the Third German Edition by John Rogers, M.D., New York, and Benjamin Tilton, M.D., New York. Edited by Lewis A. Stimson, M.D., New York, Professor of Surgery in the University of the City of New York. With 441 Illustrations. Octavo, 800 pages. Cloth. D. Appleton & Co., New York, 1894.

As a reason for presenting a translation of this German work to English-speaking surgeons the translators call

attention to the fact that even the most recent surgical text-books in the English language have adhered, in the main, to the old division and arrangement of their subjects, and instead of adding to the general group of inflammations, surgical complications and general surgical diseases, the kindred subjects of the general surgical injuries and diseases of the various tissues, they have separated the latter and combined them with the study of their numerous and varied local forms in regional surgery. On the other hand, the Ger-

mans have divided their text-books into the "general" and the "special," including in the former not only the general affections and pathology, but also the pathology and principles of treatment of the injuries and diseases of the various tissues, and confining the latter to the consideration of their local manifestations in regional surgery. The space given to general surgery in the best-known German text-books is nearly or quite equal to that given to both subjects in ours.

We are not surprised, then, to find how thorough and full is the work before us, and that it makes a volume of eight hundred royal octavo pages. We have here just what the student of surgery needs, and which he fails to find in so many text-books—a close and full study into the principles that should govern him in the treatment of surgical cases, not omitting attention to the small things, an observance of which to the experienced surgeon seems so natural that he is apt to take it for granted that they will come intuitively to the student.

The First Section treats of the General Principles Governing Surgical Operations, and gives minute and up-to-date instructions for the preparations for the operation, the administration of the anæsthetic, the prevention of hæmorrhage, the drainage of wounds, etc. The last two chapters of this section are devoted to amputations, disarticulations, resections and plastic operations. In the discussion of anæsthetics we note that the author gives credit to Dr. Crawford W. Long, of Georgia, for having performed the first operation under ether narcotism; but Dr. Long's name has been conorted into "W C. Lang." And in

describing the various methods of preventing loss of blood, we fail to find any reference to Wyeth's device for bloodless amputation at the hip-joint.

The Second Section is devoted to the application of surgical dressings, and is thoroughly illustrated.

Section Three is divided into five chapters, discussing Inflammation and Injuries; Injuries and Surgical Diseases of the Soft Parts; Injuries and Surgical Diseases of Bone; Injuries and Diseases of Joints; and Tumors. This section is especially interesting, including, as it does, the pathology and therapy of the wide range of disease that come within its scope.

The mechanical work upon the volume is most excellent.

Health Sanitation and Climatology of the Southern States.

The first number of this quarterly magazine has come to our table and it is a pleasure to notice it. It is edited and published in Washington, D. C., by Dr. Walter C. Murphy, formerly of North Carolina, its object being, the author says in his salutatory, "to collect, compile, edit and aid in the dissemination of information on Hygiene, Health, Medicinal Mineral Waters, Sanitary Science and Medical Climatology."

The first number is taken up mainly with a description of "The Land of the Sky," that world-famed plateau which has Asheville for its center. This is very proper, not only because the editor thus honors his own State, but because this locality is fast becoming the most important, from a health point, as it is already the most grandly picturesque section of the whole country. Many illustrations in

half-tone remind the reader of the countless scenes of magnificent grandeur and gentle loveliness that make this section so attractive.

We extend our congratulations to the Editor on the beautiful make-up of his magazine, and wish him every success in his laudable purpose of inciting the people of the South to greater effort in sanitary reform, and of correcting the false impressions that the South is unsalubrious.

Funny Bone. A Book of Mirth for Doctors, Druggists, Medical Students and Others. Funny Bone Publishing Co., St. Louis.

There are many things in the doctor's life to furnish a theme for the humorist, and the author of this volume seems to have missed none of them. It contains one hundred pages of fun, and will serve to take the doctor out of the serious things which so occupy him most of the time. The book is bound in paper and sold at 50 cents.

Abstracts.

RESUSCITATION OF THE ASPHYXIATED NEW-BORN.—Dr. A. B. Cooke (*Amer. Med. Surg. Bull.*) suggests dilatation of the sphincter ani by means of the finger anointed with vaseline. He claims that the effect is magical, if not startling. By this means the respiration is established efficiently, quickly, without exposing the child or injuring it, and the physician's attention is not taken away from the mother at the very time she should have it.

HYDROGEN PEROXIDE IN THE ABDOMINAL CAVITY.—Dr. H. C. Coe (*N. Y. Polyclinic*) expresses a favorable opinion on the use of peroxide of hydrogen in the abdominal cavity. He has used the fifteen-volume solution in cœliotomies for pelvic suppuration during the past year with good results. It is assumed, of course, that the peritoneal cavity has been thoroughly isolated, as is now done by all who operate in the Trendlenburg position, before any attempt is made to remove diseased adnexa. When collections

of pus are inadvertently broken into or pus tubes are ruptured, their contents are sponged out quickly, then the peroxide is at once applied to the septic focus and is removed as soon as it begins to foam vigorously. This is repeated as long as there is any reaction, when the parts are wiped dry, and it will be found that a healthy granulating surface remains, infection from which need no longer be feared. The same treatment of the stump after the removal of a pyosalpinx (whether the cautery has been used or not) prevents any danger from this source. The author either pours the peroxide directly into the cavity or applies it on sponges.

DIPHTHERITIC CONJUNCTIVITIS TREATED BY KLEIN'S ANTITOXIN.—Mr. W. H. Jessop (*Brit. Med. Jour.*) reports two cases in which the complete and rapid disappearance of the diphtheritic membrane upon the conjunctiva could only be attributed to the antitoxin. The first case was that

of a boy, 19 months old, who had membrane upon the upper and lower palpebral conjunctiva of the left eye, and a patch of membrane on the left side of the uvula. There was enlargement of one lymphatic gland over the parotid, and there was albumen in the urine. Three injections of Klein's antitoxin were given, $1\frac{1}{2}$ drachms in all; the membrane disappeared in five days, and was not followed by conjunctivitis or other conjunctival change. There was no local treatment except distilled water. The second case was that of a male child, 8 months old. There was membrane on the palpebral conjunctiva of both eyes; the parotid lymphatic glands were enlarged; there was a muco-purulent discharge from the nose. Two injections of Klein's antitoxin, 1 drachm in all, were given, but there was no local treatment. The membrane disappeared in four days. The membrane in both cases contained quantities of Loeffler's bacillus.

PEPTOMANGAN IN THE TREATMENT OF ANÆMIA IN PULMONARY TUBERCULOSIS.—In an article contributed to the *N. Y. Med. Jour.* Dr. Karl von Ruck has given his results in the use of this preparation in overcoming the anæmic condition of consumptive patients. While our direct treatment of the disease with specific germicidal remedies, inaugurated by professor Koch four years ago, is now still further advanced toward success through the purification of the remedy by Professor Klebs, and by the experience obtained since its introduction, we must, nevertheless, not lose sight of the resisting power of the patient and of its increase; as far as that may be possible, it must be accomplished, if we expect to deal

most successfully with the disease. In the application of the specific culture products in pulmonary tuberculosis his observations have amply confirmed this view, and the best results are being obtained in cases where the general strength of the patient is still good, and especially when the blood approaches a normal standard in corpuscles and hæmoglobin.

Most tubercular patients show a considerable loss in these respects, even in the early stages, and these losses are often observed to progress despite a good appetite, and in patients who for the time gained in weight. That the anæmia in such cases is of toxic origin is proved by the fact that the losses become balanced under specific treatment, and his records show many instances in which the administration of tuberculin, and more particularly larger doses of antiphthisin (Klebs), showed that a slow regeneration of the blood followed their use, while the febrile movement accompanying the resorption of toxines disappeared.

In seeking to aid the regeneration of the blood he naturally looked to the ferruginous remedies in addition to proper dietetic and hygienic management, but the indifferent results caused him to adopt rectal injection of defibrinated blood. This accomplished the object most satisfactorily, but was very objectionable to the patient. Some twelve months ago he began the administration, reluctantly, of peptomangan to a few patients who positively refused the rectal injections, and has tabulated the results in twelve cases after six weeks use. An analysis of the table shows that in the six weeks previous to the use of the peptomangan there were ten patients in whom

the loss or gain in their blood condition could be compared; 7 of these patients gained in all 1,408,000, or an average of 200,000 each, whereas these same patients gained under peptomangan 3,609,000 corpuscles, or an average of 510,000 for each.

As to hæmoglobin, a similar increase is perceptible. In six weeks preceding, of the 7 patients, 6 also gained in hæmoglobin in all 56 per cent., or an average of 9 per cent.; but under peptomangan these same 6 patients gained in all 81 per cent., and on an average 13½ per cent.

Further, whereas of the 10 patients only 7 gained in corpuscles and 6 in hæmoglobin in the six weeks preceding, under the peptomangan 9 gained in corpuscles and hæmoglobin, and no loss occurred except in 1, and she lost only a third as much as in the six weeks before.

Another series of cases was more accurately observed within the last six months, and the results were practically the same as in the table. In all classes the improvement of the blood condition was highly satisfactory—in quite a number phenomenal.

DOUBLE CASTRATION FOR HYPERTROPHY OF THE PROSTATE GLAND.—Dr. J. M. T. Finney (*J. H. Hosp. Bull.*) reports two cases in which double castration was performed for the relief of hypertrophy of the prostate gland. The first patient entered the hospital in August, 1894, complaining of inability to urinate and constant dribbling of urine, dating back two years. He had to resort to the constant use of the catheter. At that time examination of

the prostate showed it to be very much enlarged. The urine contained a trace of albumen, very few casts, slight amount of pus; was acid, and specific gravity 1.014. Upon catheterization 420 c.c. of urine were drawn off. The capacity of the bladder was about 1000 c.c. The bladder was much dilated and atonic. Examination for stone negative. The patient was put upon the regulation treatment, washing out the bladder, regular catheterization and the usual internal medication. Still he was unable to void his urine, so the operation of castration was proposed. He very willingly agreed to it, and it was performed September 22, 1894. On the sixth day following he urinated unassisted, and since that day, with one or two setbacks, he has done well. He has had occasional attacks of pain in the right side along the ureter and over the kidney, after which there appeared a little pus in the urine, but nothing more definite. The last note in his history, five weeks after operation, is as follows: "The lateral lobes of the prostate are just palpable to the right and left of the silver catheter previously introduced, They are soft, not tender, and show marked atrophy. There is now not more than 50 c.c. of residual urine; total amount 1200–1500 c.c. He urinates about seven times in the twenty-four hours. In other respects he is in very good condition."

He operated upon a second patient in private practice. His trouble was of five years' duration, with inability to urinate for two years past. The prostate was much enlarged; the urine contained pus and albumen in small amount. From frequent and rough using of the catheter, a false

passage had been made, the later catheterization became very difficult and painful. For this reason the operation

of castration was advised. He has urinated without difficulty since the fifth day.

Correspondence.

CONTINENTAL DOCTORS.

To the Editor of the North Carolina Medical Journal:

SIR:—In an official list of the prisoners of war captured at Charleston, S. C., in May, 1780, when that city was surrendered by General Benjamin Lincoln to Sir Henry Clinton, I find the following, which may be of interest to the profession:

“Roll of the Continental Officers of the North Carolina Line, Prisoners of War in South Carolina, as they stand for exchange, regulated by a Board of Officers and sent to Sir Henry Clinton and General Greene:

“William McClure, Regimental Sur-

geon, 2d Battalion, taken 12 May, 1780, exchanged 14 June, 1781.

“Jonathan Loomis, Regimental Surgeon, 3d Battalion, taken 12 May, 1780, exchanged 14 June, 1781.

“James W. Greene, Regimental Surgeon, 1st Battalion, taken 12 May, 1780, exchanged 14 June, 1781.

“Joseph Blythe, Regimental Surgeon, taken 12 May, 1780.”

In an article in the NORTH CAROLINA MEDICAL JOURNAL for August, 1894, it is shown that these Surgeons were still on duty with their respective battalions as late as August, 1782, except Dr. Blythe, who was then serving with the 4th Battalion.

GRAHAM DAVES.

Newbern, N. C. Feb. 27, 1895.

Obituary.

ROBERT LEE PAYNE, M.D.

Most of our citizens have doubtless learned that Dr. Robert Lee Payne, Senior, died in Lexington, on the 25th of February at the hand of Baxter Shemwell, a young man connected with a drug store in the same town.

Dr. Payne had but a little while entered his sixty-first year, having been born in Lexington on the 29th of December, 1834. He was descended from English ancestry, his father being Dr.

C. L. Payne, formerly of Danville, Va., but latterly of Lexington, and his grand-father R. J. Payne. He was educated at Caldwell Institute, Hillsboro, going thence to Davidson College and the University of North Carolina. Choosing medicine as his profession, he prosecuted its study at Jefferson College, Philadelphia, graduating in 1857. He settled in Lexington and associated himself with his father for the practise of his profession, remaining there until his death.

He was a member of the Medical Society of the State of North Carolina, having been admitted to membership in 1859, and during his thirty-five years membership was a loyal and an interested member, and held many positions of honor. He was President in 1878. Vice-President in 1879, Annual Orator in 1871, and in 1872 was elected a member of the Board of Medical Examiners of North Carolina.

Dr. Payne was a man of recognized ability and contributed numerous papers to various medical journals and to the Transactions of the State Medi-

cal Society. He was highly esteemed and of considerable influence in the section in which he lived so long, and held, at various times, public office in his county and town.

It is rare, indeed, that the profession of this State have to mourn the death of a member by wilful violence, and the deed brings greater horror when it falls upon one so prominent and so highly respected. The sympathy of the entire profession will go out to the afflicted family, and multitudes will mourn the loss of a true friend and faithful physician.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From February 7, to February 20, 1895:

Birmingham, Capt. Henry P., Assistant Surgeon, is relieved from duty at Fort Grant, Arizona Territory, and ordered to Fort Trumbull, Conn., for duty, relieving Captain Freeman V. Walker, Assistant Surgeon. Captain Walker, on being thus relieved will proceed to Fort Grant, Arizona, and report for duty at that post.

Fisher; the extension of leave of absence granted 1st Lieut. Henry C. Fisher, Assistant Surgeon, is further extended one month.

Byrne, Col. Chas. C., Assistant Surgeon General, is relieved from duty as Medical Director, Headquarters Department of Dakota, and announced as Medical Director, Headquarters, Department of the East.

Tilton, Lieut. Col. Henry R., Deputy Surgeon General, is announced as Medical Director, Headquarters Department of Dakota.

Godfrey, 1st Lieut. Guy C. M., Assistant Surgeon, will proceed without delay from Fort D. A. Russell, Wyo-

ming, to Fort Omaha, Nebraska, and report for temporary duty.

THE NAVY.

Two weeks ending February 23, 1895:

Biddle, Clement, P. A. Surgeon, ordered to Naval Hospital, Chelsea, Mass.

Atlee, L. W., P. A. Surgeon, ordered to Naval Hospital, New York.

Hesler, F. A., P. A. Surgeon, ordered before Retiring Board.

MARINE HOSPITAL SERVICE.

For the fifteen days ending February 15, 1895:

Purviance, George, Surgeon, detailed as Chairman Board for examination of Assistant Surgeons for promotion, to convene in Washington, D. C., March 11, 1895, February 8, 1895.

Hamilton, J. B., Surgeon, granted leave of absence six days, February 7, 1895.

Austin, H. W., detailed as member of Board for examination of Assistant Surgeons for promotion, February 8, 1895.

Irwin Fairfax, Surgeon, detailed as Recorder of Board for examination of Assistant Surgeons for promotion, February 8, 1895.

Stimpson, W. G. P., Surgeon, to assume temporary command of Service

at Port Townsend, Washington, during absence of P. A. Surgeon J. O. Cobb, February 13, 1895.

Eager, J. M., Assistant Surgeon, ordered to examination for promotion, February 9, 1895.

Blue, Rupert, Assistant Surgeon, granted leave of absence for six days, February 13, 1895.

Norman, Seaton, Assistant Surgeon, ordered to examination for promotion, February 9, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

We are in receipt of a copy of a convenient day-book for March, 1895, from the Medical Novelty Co. (Inc.), 21 West 23d Street, New York.

A new medical school, to be known as the "Practitioner's School of Medicine," has been organized in St. Louis. A school for practitioners reminds the *Columbus Medical Journal* of the doctor who spoke of sterilizing his antiseptics.

The *Medical Record* says the supply of guinea pigs is running short. They are needed to test the antitoxin strength of the diphtheria serum. Seventy-five cents are paid for a healthy pig two months old. A pair for breeding purposes cost \$1.50, and they breed four times a year, with four in a litter, but one dies shortly after birth.

We are in receipt of Warner's Therapeutic Reference Book, which will be sent to any reader of the JOURNAL sending fifteen cents to defray mailing expenses and who will mention this JOURNAL. The book is of convenient size for the coat-pocket, and is bound in flexible leather. It contains much information that the busy physician will find useful, such as aids in memo-

rizing doses, table showing the digestibility of different foods, a medical formulary containing upwards of 300 selected prescriptions, arranged alphabetically with reference to the conditions in which they are indicated. These are only a few of the valuable points of which this little book is full.

The Medical Practice Act in Tennessee has been declared unconstitutional. The *Southern Practitioner* says it has no tears to shed over this decision, and thinks the best thing to be done is for the Legislature to repeal the whole thing and get it out of the way. Evidently the bill was badly drawn, and the better thing would be to make a better one. A State without a good medical practice law in these days will be a dumping ground for quacks and incompetents.

Messrs. Frederick Stearns & Co. have established a Six Hundred Dollar Fellowship in the University of Michigan, to be known as the "Stearns' Fellowship of Pharmaceutical Chemistry and Pharmacology."

The newspaper reports on the facts connected with the distressing affair at

Lexington, resulting in the death of Dr. R. L. Payne, are so contradictory that we refrain from publishing any account at all until the facts are established at the trial to be held this week.

ANTITOXIN IN AUSTRIA.—J. Edward Nettles, United States Consul at Trieste, Austria, in a report, published in the *Abstract of Sanitary Reports*, gives comparative statistics of the mortality attending diphtheria in Trieste before and after the introduction of the Behring-Roux antitoxin serum treatment. This was commenced August 15, 1894, and has been continued ever since with the exception of two weeks ending December 8, when the serum was exhausted. They are as follows:

"The percentage of deaths during the year 1893, as shown by the sanitary reports, was 46.95, and from January 1, 1894, to August 15, 1894, when the antitoxin serum treatment began, 42.70 per cent. From August 15 to date, exclusive of the two weeks ending December 1 and 8, when the serum supply was exhausted, under the use of the antitoxin serum, the percentage of mortality has been reduced to 16.50 per cent. The percentage of deaths has been lowered as experience in the use of the antitoxin was acquired; thus, since January 1, 1895, the deaths have been only 10 per cent. It is worthy of note that during the two weeks ending December 1 and 8, when the antitoxin serum was not used, the deaths amounted to 44.30 per cent., there being a sudden and sharp decrease of deaths when its use was resumed."

Surely, unless the honesty and ability of prominent and heretofore trust-

worthy observers count for nothing, the introduction of the serum treatment of diphtheria will mark on epoch in the history of medicine as important as that which has immortalized Jenner. It is interesting to note that the two discoveries are separated by just a century, and that half way between the two came the discovery of anæsthesia. Vaccination, Ether, Antitoxin.

The following is the health report of Wilmington for February, 1895:

	Whites.	Col.	Total.
Population.....	9,000	13,000	22,000
Deaths.....	8	23	31
Annual death rate rep.	10.7	21.2	16.9

Causes of Death.—Whites; scarlet fever 1, consumption 2, brain diseases 1, heart disease 3, all other 1—total 8. Colored; pneumonia 1, consumption 7, heart disease 5, all other diseases 10—total 23.

The *Medical Missionary Record* has made a change in its title, and will hereafter be known as *The Double Cross and Medical Missionary Record*.

The official report for 1894 shows that on the various railroads of the United States there were, during the year, 37 passengers killed, as against 79 the year before, and 703 injured. Of the employes there were 399 killed and 6,519 injured, as against 650 killed and 8,848 injured in 1893.

BRONZE STATUE OF DR. GROSS.—Washington, D. C., Feb. 25.—The House to-day adopted the Senate joint resolution granting permission to the American Surgical Association and the Alumni Association of Jefferson Medical College to erect a statue in Washington of the late Samuel D. Gross, M.D., D.C.L., LL.D.

Dr. George Ross, of Richmond, Va., was recently presented (by a lady, of course) with a pair of gold-linked sleeve-buttons, on which are stamped "crossed Confederate flags." In acknowledging the token the Doctor made the following reply:

A PAIR OF SLEEVE-BUTTONS.

A pair of sleeve-buttons! they bear on their face

The flags of a country now dead;
A country that flashed on the world,
meteoric,
Brightening the skies, and then fled.

'Twas a sectional child, that land of
the South,
As "Dixie Land" known among
nations;

But while valor and home-love and
sacrifice live,

Will a theme be for soldiers' narra-
tions.

Do they speak, these buttons that
fasten my sleeves?

Aye! silently speak they, and well;
For they bear on their face the Con-
federate flag

Which the Southrons bore and which
fell.

To the men of all ages who gaze on
its bars,

And count the bright stars on its
shield,

They will tell of the heroes who fought
and who fell,

And to starvation only would yield.

—Exchange.

Reading Notices.

We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

George W. Harder, M.D., Troy, New York, in his paper, "Diagnosis and Local Treatment of Chronic Ulcers of the Leg," appearing in the *Courier of Medicine*, regarding "Sennine," says:

"I cleansed the sore with simple soap and water, filled the excavations with 'Sennine,' a product of Boracic Acid and Phenol, covered with dry lint, having raised the limb to the horizontal position.

"This dressing should be applied every third day, and I remark here, there are very few of ulcers of this class which I have mentioned but which will be at least very materially benefited in a very short space of time by this method of treatment; in fact,

since I have adopted this apparently small procedure and made the patient persist in this, I have been very eminently successful."

At this season of the year, when radical and sudden thermal changes are the rule, it becomes of vital interest to the busy practitioner to have in compact, ready form, such approved medicaments as meet the analgesic and antithermic requirements of the bulk of his patients. As pertinent we call attention to the following combination tablets: "Antikamnia and Codeine," each containing $4\frac{3}{4}$ grs. antikamnia and $\frac{1}{4}$ gr. codeine. "Antikamnia and Quinine," each containing $2\frac{1}{2}$ grs. antikamnia and $2\frac{1}{2}$ grs. quinine. "Antikamnia and Salol," each containing $2\frac{1}{2}$ grs. antikamnia and $2\frac{1}{2}$ grs. salol, and "Antikamnia, Quinine and Salol," each containing 2 grs. antikamnia, 2 grs. quinine and 1 gr. salol. These, together with the well-known "Antikamnia Tablets," of varied sizes, and "Antikamnia Powdered," constitute indispensable factors in the armamentarium of the physician, and are more than ordinarily indicated in present climatic conditions.

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Original Communications.

WHAT IS TUBERCULIN ?

BY KARL VON RUCK, B.S., M.D., Director of the Winyah Sanitarium for Diseases of the Lungs and Throat, Asheville, N. C.

The above is the title of an open letter by Professor Charles Denison, of Denver, Colorado, published in the *Colorado Climatologist*, November 15, 1894.

In a personal letter received from Dr. Denison on the 13th instant, he requests me to reply to the letter, and I am the more glad to comply with this request, inasmuch as I am able to join with my own the views of Professor Edwin Klebs, who is at present my guest.

In his open letter Dr. Denison objects to the statement from another source, that tuberculin is identical with poisonous products resulting from tubercular processes within the living organism, and also to the consideration of tuberculin as a toxine or a toxalbumen, and he bases his objec-

tions upon the favorable clinical results which he and others have obtained from its therapeutical application. These results, he maintains, justify the belief that the remedy is an antitoxine and capable of producing a certain degree of immunity when properly applied in suitably selected cases.

Dr. Denison wants answers to two questions—first, Is tuberculin a toxine or antitoxine? Second, How is it made? And he wants answers either from Professor Koch himself, or from some one who is thoroughly acquainted with this subject.

Before considering these questions I desire to refer to the subject of bacteria-therapeutics in general.

The foundation principle of bacteria-therapeutics is the self-limitation of

the diseases produced by pathogenic germs, and the shorter or longer immunity to reinfection after recovery.

This principle finds partial elucidation in the fact that in artificial cultures of such bacteria a similar limitation is observed, and that the cultures after a time cease to grow and finally die out long before the nutrient substance contained therein are exhausted.

The additional observation, that such culture fluids, when the germs are filtered off, act germicidal to the particular species, whereas other specific forms grow and multiply freely upon the exhausted culture fluids justifies the belief that this germicidal property belongs to the vegetation, or rather secretion products of the particular kind, and that the same as in man these excrementitious substances are poisonous to their producers.

The immunity from recurrence of the same disease is more difficult to explain, but it is assumed that either through the products formed by the bacteria, or from their disintegration within the organism, the tissues of the previously infected organism become so modified that for a time this growth and multiplication is no longer possible, or that the organism tolerates the poisons which the bacteria produce, and thus the germs, although present, do not occasion the symptoms of the specific disease. Much may be urged for and against either of these theories, yet the fact remains that a greater or less degree of immunity, as a rule, results, and may be artificially produced.

There can be no doubt that the substances which destroy the disease germs, or which confer immunity directly or indirectly, are contained

either in the bacteria or in their secretion products, and, so far as we approach a perfect condition of virulency and favorable growth of the germs outside of the living organism, we may hope to obtain these substances from their artificial cultures.

It is well-known that guinea pigs are highly susceptible to tuberculosis, when inoculated with virulent cultures, and with sufficient numbers of the germs the disease follows a rapid, definite and fatal course. In Koch's experiments made upon animals inoculated from the same culture, and with like quantities, the disease was allowed to develop to its unmistakable recognition, then certain animals were treated with tuberculin, while others for control were kept under the same conditions without treatment. In these control animals the disease pursued its usual fatal course, whereas the treated animals again improved, outlived the control animals by considerable periods; some finally succumbed to the disease in the end, others were killed for examination, after various periods of treatment, and in the latter the evidence of previously present but healed tubercular lesions were unmistakably demonstrated, although more recent processes pointed also to the fact that the old lesions were not all entirely recovered from. Professor Klebs took up this experimental work in guinea pigs, immediately after the announcement of tuberculin and carried it much further; and he also has shown that in guinea pigs treated with tuberculin previous to tubercular infection, the disease followed a much slower course, and that the tubercular lesions produced by inoculation had undergone retrogressive changes, and

in some cases entire cure. So far as guinea pigs are concerned, Professor Koch, and more particularly Professor Klebs, proved, beyond controversy, that tuberculin has a curative influence, and the latter also proved that it confers a certain degree of immunity, varying according to the time for which the treatment was carried out and the amount of tuberculin used.

The unexpected toxic effect of larger doses of tuberculin in the human surface at once limited its use for the treatment of human tuberculosis, and while guinea pigs bore doses of several hundred milligrams and improved under them, disaster followed from greatly smaller doses in man, and the persistence in the use of large and evidently poisonous doses for therapeutical purposes, brought the remedy into discredit, as it was not supposed that doses much smaller than necessary for the curative effect in guinea pigs could be of value in the treatment of the human subject.

There were, however, conservative men among the profession who, appreciating the unmistakably favorable influence of the remedy upon the animal, and recognizing that, despite the disasters in many instances, it acted curatively in man also, looked for a safe method of application by reducing the doses to such, which showed no toxic effect whatever, and who, under careful selection of cases, hoped to still take advantage of the curative properties. Their results justified their faith. For myself, I can say that I have so applied the remedy for three years and a half, and that I have every reason to be satisfied with the results I have obtained, while, with the exception of my first few weeks of experi-

ence, I have never observed a single instance in over 20,000 injections since made, where the remedy acted detrimentally, or produced undesirable symptoms or discomfort in my patients.

Tuberculin was not all one could desire, but it was a help, indeed an important one, and never having had faith in panaceas, nor ever expecting that we will get them, I was glad of the addition to my resources, hoping that something better might come in the future.

In the meanwhile, Professor Klebs and others undertook further experiments with the view of improving tuberculin by eliminating its toxic properties, the former devoting his entire time and energy to the subject.

Those interested will find a full account of the course of his investigations in his work on Tuberculosis, my space will only permit me to mention that he found tuberculin to contain alkaloids, soluble in alcohol, toxines or toxalbumens, precipitated by sodic iodide of bismuth, while another albuminous substance, a soz-albumen, was found in the alcohol precipitate. All these substances were separated and tried upon guinea pigs and other animals, and it was found that to the alkaloids were due the depressing and injurious effects upon the heart; to the toxalbumens the fever, malaise and inflammatory effects, while the soz-albumen was free from these properties. With the latter substance, now called antiphthisin, Professor Klebs has cured guinea pigs entirely, and kept others alive for long periods, while the control animals perished under the usual course and manifestations of tuberculosis and in the usual short periods of time.

In the human subject its application in doses up to several thousand times greater than permissible of tuberculin, has produced no depressing effect upon the heart, no fever or inflammatory symptoms, and no other undesirable effects, while it showed the same favorable, curative influence as upon guinea pigs, and proportionally larger doses to a much greater degree than obtained from the use of tuberculin.

It still remains to be shown what the effects are of the substances contained in the bodies of the bacilli of tuberculosis, and highly interesting and probably important results may be looked for from this line of experimentation, which Professor Klebs began in the past year and is now pursuing further in the laboratory of this Institution.

When these experiments will have been concluded, we shall have each substance contained in tuberculin in an isolated form, and so far as they are available for therapeutic purposes, we will be able to use them separately or in various combinations according to the nature and particular indication of a given case.

Antiphrasin is unquestionably the germicidal part of the tuberculin; it is obtained from the culture fluid from which the germs are previously filtered out; it is therefore a secretion and excretion product of the germ.

To answer Dr. Denison's question more directly, I would reply that tuberculin appears to be a complex substance containing toxins, toxalbumens and germicides (soz-albumen), as well as alkaloids (ptomaines).

As to its manufacture, it is very simple and as follows: The ripe culture, i. e., one which has reached its

limitation of growth, both bacteria and culture fluid, are brought upon the water bath and reduced to one-tenth the original amount and then filtered.

In this connection a prevalent error should be corrected. At the time of its introduction it was erroneously believed that what was then called Koch's lymph and subsequently tuberculin, was prepared under the control and auspices of the German government, and was given to the world without profit, the amount paid, however, going into the hands of the government and not into those of Professor Koch and his associates. Professor Klebs informs me now that this has never been the case. The laboratory in the Lüneburger Strasse in Berlin, where the remedy was prepared from the beginning under the direction of Dr. Libbertz, was an entirely private enterprise of Professor Koch, in which Professor Pfuhl and Dr. Libbertz and possibly some others had an interest, and to these gentlemen resulted the profits. Later, the laboratory was transferred to the Farbuwerke of Meister Lucius, and Bruning, in Hoechst, A. M., where Dr. Libbertz has charge yet, and where the remedy is made for the benefit of those interested. It is remarkable that the price for tuberculin of five marks a cubic centimetre in Germany and two dollars a cubic centimetre in this country is still maintained, whereas Professor Klebs has reduced the price of the much more expensive purified preparation to one-quarter of this amount, and contemplates still further reductions as the facilities for its production are being increased and improved.

If we now consider the clinical aspect

of tuberculin and its purified derivative (antiphthisin—Klebs), we can very readily see that the great obstacle to the free use of the former for therapeutic purposes is the presence of the toxalbumens and of the alkaloids, these substances being highly poisonous in minute doses and producing the often-described fever, malaise, nausea, diarrhœa, general aching, depression and disturbances of the heart and circulation. To introduce considerable and distinctly effective quantities of the associated soz-albumen or germicidal substance, we would have to give doses otherwise seriously detrimental, if not fatal, to the human subject.

Animals seem to have a greater toleration for toxalbumens and alkaloids, and hence their greater toleration for tuberculin to a degree that quick and curative effects followed its use in their treatment. In the human subject by very gradually increasing doses a certain toleration can be established.

Under such gradual increase, undoubtedly, good results followed, especially in cases in which the disease was not very active nor following a rapid course; therefore in the early stage and in non-febrile advanced-stage cases we had the best results. These cases allowed of sufficient time to obtain a gradually increasing tolerance, but they also suffered acute exacerbations when the remedy was injudiciously pushed to larger doses. At best the treatment had to be continued for a long time, and required such circumspection and watchfulness that I was never willing to administer tuberculin except to patients living in my own house and under my constant observation. I am still gratified with my results and observe with much satisfac-

tion that they have been quite uniformly maintained after the patients were discharged and returned to their previous places of residence and mode of life. The remarkable absence of relapses would speak for a certain degree of immunity produced by the remedy.

In 1891 and 1892, when Professor Klebs first introduced a purified product of tuberculin under the name of tuberculocidin, I treated a series of cases with this substance and reported my results in the *New York Medical Journal* for 1892. I was then well convinced of the germicidal properties of tuberculocidin, but the price of three dollars a cubic centimetre was practically prohibitive under the large doses required. The trial came to an abrupt termination by the destruction of my Institution by fire in August, 1892.

In the early part of this year tuberculocidin was again made use of in two cases, who proved entirely intolerant to even the minutest doses of tuberculin, and who failed to show any improvement after three to seven months residence in my Institution. All other means having been exhausted, I resorted to tuberculocidin, and with very satisfactory results. Improvement became evident after only a few weeks use of the remedy, and both patients progressed so satisfactorily that other patients observing the remarkable results, insisted upon being treated with it also. Both of these first patients made an entirely satisfactory recovery and have remained well. In addition to these two cases, between fifty and sixty other patients have been treated, and since July antiphthisin has been used instead of tuberculocidin. The results obtained

have been highly satisfactory, and will be reported in the future. At this time most of these cases are still under treatment, and with the exception of two very far advanced, hopeless cases, who received the remedy at their own urgent request, we have witnessed improvement in various directions, clearly attributable to the antiphthisin in every case.

Three early-stage cases have been discharged apparently cured; at the time of discharge all consolidation distinguishable by percussion had disappeared. The respiratory sounds were clearly vesicular, and the patients declared that they felt as well as ever.

Quite a number of more advanced-stage cases have also been allowed to return home with instructions to return for further treatment if symptoms should again return, the disease appearing entirely arrested and the general health restored.

The observations of a favorable character which appear to me partly or altogether due to antiphthisin, are as follows:

1. In all cases the fever became less as the doses were increased. In the earlier stages the fever subsided entirely and did not return. In the advanced stages, where septic and other complications were present, while the temperature diminished, it did not disappear entirely until the complications were also controlled.

2. In early-stage cases the cough and expectoration were favorably influenced at an early period of the treatment, and disappeared entirely as the treatment was continued.

This is also true of night-sweats.

3. The appetite and nutrition im-

proved in proportion to the reduction of fever.

4. Degeneration (granular, club forms and fragmentation) of the tubercle bacilli was constantly observed in all cases treated. The tubercle bacilli diminished steadily in number in the total quantity examined (one cubic millimetre homogenous sputum) and finally disappeared entirely. In more advanced cases, where large cavities were present, while the degeneration and diminution in number was also observed, their entire disappearance from the globular sputum (from cavity) has thus far only occurred in a few cases treated a longer time, but in non-globular sputum the degeneration and disappearance of the bacilli occurred the same as in early-stage cases.*

In a considerable number of patients previous and repeated sputum examinations were available for comparison.

5. Remarkable changes have been observed upon physical examination consisting in unmistakable clearing up of percussion dullness and return of a vesicular quality of respiration in the cleared-up area. (I can truthfully say that I have never seen such remarkable changes in so short a time; in several instances the dullness gave place to a deep, low note, with evidences of emphysema. I have not failed in a single instance to observe such local

*The longer continuance of tubercle bacilli in sputum from cavities Professor Klebs explains by the fact that the remedy cannot reach them as readily there. In the cavity the tubercle bacillus grows more rapidly upon the solid, cheesy, degenerated walls and upon the dead tissues lining them, which are cut off from the circulation; only after such cavities have become clean and the walls have become vascular, will the tubercle bacilli be accessible to germicidal influence through the blood.

improvement, over more or less extensive areas, and explain this by the absorption of tubercular tissue and of inflammatory exudates from the acini and alveoli of the lung, which is further confirmed by the fact that the vital lung capacity was increased in reasonable proportion, while the patients, before the physical examination was made, stated that their breathing was freer, and that their shortness of breath upon exercise had certainly improved.)

6. There is an almost uniform statement by patients of the benefit they themselves become aware of, especially as to easier and freer breathing, increased sense of strength and well-being, better appetite, less fever, less cough and expectoration, and better sleep.

7. The improvement observed by me in temperature, pulse, respiration and by physical examination and the subjective sense of improvement by the patients themselves was obtained in comparatively short periods of time, usually beginning within the first three or four weeks, and such improvements are the more rapidly observed when large doses are administered.

8. When antiphthisin was locally applied to tubercular ulcerations the latter became clean and showed a tendency to heal, and in cases treated for from several weeks to several months, such ulcerations have healed and remain so to this time.

So far, then, my own experience confirms what Professor Klebs has claimed for antiphthisin as being specific and germicidal against the bacillus tuberculosis, under the degeneration and disappearance of which the tubercular process undergoes retrogressive changes by the conversion of tubercu-

lar tissue into such from which it has proliferated.

Such action, however, also indicates the limitation of the remedy, being a specific germicide, we cannot expect it to control the conditions resulting from associated pathogenic germs of, for instance, the streptococcus, pyocyaneus, diplococcus, etc., nor can we expect to remove with it the symptoms and degenerative processes indirectly due to them or to the tubercle bacillus. Antiphthisin must therefore not be expected to control septic processes, fatty or amyloid degeneration, nor reach the tubercle bacillus in dead tissues or in localities not, or but slightly, accessible to the circulation or to local applications.

These limitations should be clearly borne in mind in its application and in the expectation from its action.

In my endeavors for furthering the successful treatment of tuberculosis and in my clinical use of tuberculin and of antiphthisin, I have ever been governed by the desire to find the truth; my convictions have justified me in inviting Professor Klebs to come to this country to aid me with his experience and advice. Since his arrival I have been able to induce him to associate himself with me in my work, with which he was pleased to express his greatest satisfaction. Tuberculin and antiphthisin will hereafter be produced here in our bacterio-therapeutic laboratory, which is now nearly ready for operation. Of this laboratory Professor Klebs will have exclusive charge, while he will also act as consulting physician to the Sanitarium.

The first experimental labor upon animals in the new laboratory will be in the direction of producing immu-

nity to tubercular infection, and to determine in what part of the culture of the bacillus the immunity-producing substance is contained. Investigations will also be made as to the associated pathogenic germs in pulmonary tuberculosis, and especially in advanced cases with cavity. After their relation to the course and symptoms of the disease is determined, efforts will be made to find in their culture products the proper germicide for their successful removal.

The results of these labors will be made known to the profession by frequent communications by Professor Klebs. For the present antiphthisin will not be given to the ordinary channels of trade. On the contrary, appreciating that for the successful treatment of tuberculosis something more than the ability to give a hypodermic injection is required, a course will be soon offered in this Institution in which full and practical instruction will be given to members of the profession. The course will include Bacteriology, Pathology, Physical Diagnosis and the general management and care as well as the specific treatment of tuberculosis.

To physicians of known ability in this field of labor and to institutions where a scientific trial of the remedy is assured, antiphthisin will now be furnished direct from the laboratory, and until its clinical value is fully established and confirmed by competent observers it will not be given out in a general way; special application for particular cases will be considered, and, so far as from the limited amount available it is possible to do so, the remedy will be furnished for such cases.

As to the directions for the use of

antiphthisin, it may be said that the same should be employed as a specific germicidal product. It is only recommended for use in the earlier stages of tuberculosis, and must not be expected to relieve complications, especially those which are produced by other pathogenic germs, notably such as produce suppuration and septic fever. The remedy can only act upon *living tubercular tissue* and upon tubercle bacilli which are within reach of the circulation. The more vascular the part, the more rapid and distinct is its specific effect. It must, however, be remembered that when a large number of tubercle bacilli are destroyed and a considerable quantity of tubercular tissue is being absorbed, toxic products the same as are contained in the unpurified culture fluids may thus be liberated within the organism, which may give rise to aching, malaise, fever and congestion of tubercular areas.

It is therefore best, except in the most urgent cases, to begin with the remedy in comparatively small doses and to increase it gradually, thus avoiding effects which, although not at all dangerous, may give rise to alarm and anxiety both on the part of the physician using the remedy and of the patient.

Should such an effect, nevertheless, occur, the remedy may be intermitted for two or three days, until the effect has entirely subsided, to be then resumed with about half the previous dose administered, and the increase continued the same as before. Under the more cautious procedure the beginning dose for an adult is one-tenth of one c.c. of the ten times concentrated solution, and this dose is increased by one-tenth c.c. per day until

one c.c. is reached. The latter may be repeated for several days, and the increase thereafter may be more rapid, by half a c.c. at a time, repeating each such dose three or four times, or oftener, according to the effect produced. Antiphthisin is non-poisonous and produces no symptoms unless, as indicated, by too rapid destruction of bacilli and absorption of their products. At present the maximum dose that has been reached is ten c.c. per day, and when doses larger than one c.c. are reached it is recommended to divide the dose, giving one-half in the forenoon and the other half in the evening. If the remedy produces local irritation at the point of injection, or when larger doses are administered the rectal method may be adopted, which consists in introducing the remedy diluted with a small quantity of distilled water, with a sterilized rectal syringe, into the rectum. The greater vascularity of the latter part causes rapid absorption of the remedy, and observations thus far justify the belief that such administration is fully as effective as is the hypodermic method. Intravenous injections are more effec-

tive still, and much smaller doses are required.

After fifty to one hundred c.c. of the remedy have been used, the question should be determined whether an intermission of some weeks or months should not be allowed, or the treatment stopped entirely. The entire and repeated absence of the tubercle bacillus in the expectoration, together with a corresponding amount of improvement, general and local, and the absence of all fever would justify such a course.

The fever due to the tubercular processes will be found to gradually disappear when large doses of the remedy (from two to five c.c.) are reached.

The present cost of antiphthisin is fifty cents per c.c. in vials of ten, fifty and one hundred c.c., the amount for which, to save labor, must accompany the order. It is not intended to make the laboratory a source of personal gain, on the contrary, its object is to produce the remedies at so low a cost that the same will eventually be within the reach of the poor, which will be possible when the demand for it justifies its preparation upon a large scale.

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

February 26, 1895.

Dr. Hugh McGuire read a paper
on

LYMPHADENOMA,

commonly known as Elephantiasis; the former better expressing its pathology.

The nature of the disease, its causes and symptoms were gone into and then the treatment was taken up.

If the disease is seen in its early stage and proper treatment started, it may be relieved, or, at least, held in

check; but, if the trouble has become established, under our present methods little could be accomplished without the aid of the knife. During the inflammatory attacks the patient should be put to bed, hot or cold applications and the usual remedies for inflammatory troubles used. If the fever is high, anti-thermal agents should be employed. Tonics, such as quinine, iron, cod-liver oil and the mineral acids can be profitably administered; but perhaps the most valuable medicament is iodide of potash. If the patient be living in a tropical country, he should of course be advised to move. After the inflammatory attack has subsided, inunctions of iodine and mercurial ointment should be used to soften the skin and promote absorption. Much good has been done by firmly bandaging the part with a woollen, or, better still, a rubber bandage. Lately strong galvanic currents have been highly recommended. Ligation of the main artery of the limb and excision of a section of the sciatic nerve have been tried, and occasionally do good; but neither can be relied upon. In advanced cases of lymphadenoma of the genitals the affected parts should be amputated. Recent authorities also advise removal of large wedges of the affected tissue when the legs are involved. If the patient's condition does not allow removal of all the growth at one sitting, several operations may be done. In the operations the most rigid aseptic precautions are necessary, because of the intimate connection this growth has with the lymphatic system.

Before concluding, I would like to report an interesting case of lymphadenoma which has been under my

treatment for some weeks. It is as follows:

L. C., colored female, aged 20, has lymphadenoma of the lower limbs the right more than the left. The greatest measurement of the right calf is 33 inches, thigh 35 inches. Both legs are eczematous. Seven years ago the patient suffered from in-growing toe-nail of the right foot. An eruption started from this, the parts became hot and swollen, and she suffered from severe pain and fever for several days. On an average of once every one or two months she has had acute attacks of the disease, and after each the leg has increased in bulk, until now it has reached an enormous size. About three years ago the left leg became involved and has steadily grown worse. The attacks are more severe in summer, and any unusual amount of work or walking will bring on the trouble, but complete rest of the limb is equally injurious, as there then is an accumulation of lymph in the part, causing great tension. Any abrasion of the skin is followed by a discharge of lymph, which gives temporary relief. During attacks she has sharp shooting pains in the groin and calf, the limbs become stiff, glands swell and there is high fever. This condition lasts for a day or two, then gradually subsides, leaving the limbs larger and the general health impaired. The legs are now enormous and locomotion is difficult.

In treating her I have, at Dr. Hunter McGuire's suggestion, departed from the usual method. Three or four times weekly I apply over some of the main lymph channels of the leg a cup-shaped electrode, which contains one day a saturated solution of iodide of potash,

and the next tincture of iodine. A galvanic current of seven or eight milliamperes is used for cataphoresis. Whether this treatment will give any permanent relief I am as yet unable to say; but since it was begun the calf measurement has been reduced from 34 to 33 inches, and the patient has passed a longer period without an acute attack than she has known for years. Her general health has been improved by tonics, and she is advised to take a moderate amount of exercise.

The Doctor exhibited photographs of the case.

DISCUSSION.

Dr. Hugh M. Taylor: I am of the opinion that we do not know enough of the diseases of the lymphatic system. It has an important part in the economy closely related to that of the veins. The lymphatics are the great sewers; they cart away septic matter. To see how soon they act, watch a septic wound. But besides this, they convey antiseptic material, and this should teach us the value of using antiseptics which are absorbed from the surface by the lymph radicles and carried to the deeper parts. As I understand the question, it is due to blocking of the deeper lymphatics producing inflammatory troubles, overgrowth, etc., just as obstruction to the veins would cause œdema. Elephantiasis may start as a surface injury, spread through the lacunæ and radicles to the deeper vessels and main channels, and even affect the glands, but not necessarily the latter. The glands may be affected in disease without involvement of the vessels, acting as catch-pits for the septic material which has been conveyed to them by the

pipes, the lymph-vessels. There are two forms of elephantiasis: (1) Spurious, due to obstruction and inflammation of the radicles first and then the deeper channels. (2) True, due to a germ found in the tropics and semitropics. I cannot see what treatment should be adopted except to produce absorption of the obstruction.

Dr. Edward McCarthy thinks it would be difficult to get union in this disease when pieces are cut out, as was stated by Dr. McGuire.

REPORTS OF CASES.

Dr. V. W. Harrisou: I report this case because of the family history, which is novel, to say the least. The patient had post-partum hemorrhage before the placenta was delivered. She was under chloroform, so the hand was introduced into the womb and the portion of the placenta found adherent was peeled off with difficulty. She bled for twenty minutes, but made a recovery. Her two aunts died from post-partum hemorrhage. One was aged 22, the other 24 years. Her mother had four children and after the birth of each there was hemorrhage. Two sisters, 18 and 19 years old, respectively, died from post-partum hemorrhage.

Dr. Taylor: Male, aged 40; lawyer. Five years ago, while pleading a case, the patient, who was a robust man, was taken with a sudden pain in the head, rendering him unable to go on. He was taken home and to a great extent lost his memory. Accompanying this there were no other troubles, as paralysis etc. In this condition he remained for six weeks or two months, then he became better and was advised to give up practice and go farming.

He did this for two or three years and was doing well. About this time he had occasion to go to Baltimore. While on the street in that place he suddenly lost the use of his lower extremities, but consciousness was retained. Control over the bladder and rectum was gone. He was sent to a hospital and in three or four months his bladder, rectum and locomotion had improved to some extent. In this condition he has been ever since. He walks as though he had locomotor ataxia; he has the girdle sensation and exaggerated reflexes; control over the bladder and rectum is only partial; constipation is present and there is a sense of numbness in the lower extremities. Mentally he is whole and has returned to his vocation as lawyer. I am not clear as to the cause of the trouble. When first taken (while he was laboring under mental pressure), I am of the opinion that some small vessel of the brain ruptured, producing effusion of blood and consequent pressure. It was too sudden to be due to inflammation. In six weeks the clot was absorbed and there was restoration. The loss of locomotion and control over the bladder and rectum were due to rupture of a vessel of the meninges of the cord and not of one of the cord itself. I say it was hemorrhage because it was sudden. Then in six weeks or two months this clot was absorbed and the worst effects were partially, but not entirely, recovered from. I do not know if a better condition will result; if the disease does not progress, the prognosis is good. The only intelligent hypothesis I can give is the rupture of the blood-vessels due to an atheromatous condition. There is no history of spe-

cific trouble. For treatment, I am giving him 50 grains of iodide of potash a day.

Dr. John F. Woodward agrees that the trouble is hemorrhagic and in the lumbar region. It is a mixture of locomotor ataxia and myelitis the sensory and motor tracts of the cord being involved. I am sure, said the Doctor, that 150 grains of the iodide, instead of 50, would give better results, as the following shows: A man seen at the Eye, Ear and Throat Clinic had lost the use of all the muscles of the eyeball and of the upper lid, the right eye being the one affected. The trouble was specific. When 60 grains a day had been reached all motion except that of downward was restored. The dose was increased to 120 grains and the eye moved perfectly.

Dr. William S. Gordon: I do not agree with Dr. Woodward that the case is one of true locomotor ataxia. If it is, some explanation is to be made. Of course, there was some predisposition in the brain to the attack. If the lesion was in the ascending or descending lateral tracts, the spinal symptoms would have been continuous with those of the brain, but the two are separate. If the case were a well-marked one of locomotor ataxia, we would have lightning pains. Besides a lesion of the posterior columns, the cerebellar tracts would be affected. Pressure, if light, would cause irritability and exaggeration of functions; if great, then abolition. I do not doubt that the cause of the disease is effusion.

Dr. Woodward: Locomotor ataxia may begin months or years before its manifestation, agreeing with the symptoms detailed by Dr. Taylor. There is an indication in the optic nerve long

before, and also in the head, arms and legs. I did not say the case was one of true ataxia, but a mixture of it and myelitis. The fact of only a partial involvement of the sphinctres proves it. It is hard to say to what the lesion

is due. It is now contended that in locomotor ataxia the seat of injury is in Spitzka's or Gower's column. Dr. Taylor's case may develop into one of true locomotor ataxia.

MARK E. PEYSER, M.D., Sec'y.

Selected Papers.

THE "DISPERSIBLE" TUMORS OF THE FEMALE BREAST, WITH CASES.*

BY HERBERT SNOW, M.D., Surgeon of the Cancer Hospital, London, etc.

A very common question by hospital patients who apply with a "lump in the breast" is: "Whether this cannot be dispersed?" While it is needless to remark that such an aim is not possible in the case of a cancerous growth, or that should we vainly essay for the latter merely tentative treatment, we shall only succeed in frittering away what may yet remain of the six or eight weeks period, within which alone modern surgery can reasonably guarantee a radical cure, yet I should like now to point out that a margin of instances numerically considerable yet exists, wherein recourse to the operator's knife is hardly ever necessary, and in which "dispersal" can be effected with no great difficulty.

Foremost of the latter is the tumor described in my works, by way of distinguishing it from the connective-tissue mammary growths of later life,

*A paper read in the Section of Surgery at the Bristol meeting of the British Medical Association, 1894.

as the "fibroma of adolescence." This is found only in the evolutionary period of the mamma, i. e., from fourteen to twenty-five years of age. A young girl who wears a tight corset appears with the "lump" aforesaid, varying in degree from a scarcely perceptible thickening of the breast-tissue to a distinct, rounded, rather nodular tumor as large as a walnut. Often several of those are present, and both breasts are affected. The pain complained of varies greatly with the emotional tendencies of the girl; and also (in no small degree) with her frequent resort to tea-drinking. Commonly it exhibits an inverse ratio to the palpable magnitude of the tumor; it is always worst at the menstrual periods. Such growths are the necessary result of obstructed mammary development in early youth, and, so far as I am aware, occur only in a state of civilization. From the huge connective-tissue growths which appear during the decline and devolution of

the mammary gland, i. e., after the age of 34, the "fibroma of adolescence" differs in not becoming associated with cyst-formation, an invariable sequel to the adeno-fibroma or cystic-fibroma of middle age. The former generally yields to suitable management of hygienic and medicinal character; the latter is never cured, or even arrested, without a surgical operation.

The old rule *sublata causa, tollitur effectus*, while not absolute, yet has considerable significance in the case of an organ which, like the youthful mamma, has not yet completed its growth. The aberration of nutrition which produces these small fibrous hypertrophies of the breast-stroma appears largely due to direct pressure, but something must also be ascribed to indirect pressure-effects and to sympathy with the uterus, also struggling for unimpeded development. Moderate the injunctions of fashion in the matter of stays, tranquilize the nervous system, abolish tea, order some absorbent ointment, with *frequent* local friction, and the "lump" will vanish within a few weeks, seldom more than six. The application I generally prescribe is as follows: Pulv. plumbi iodidi, 3 j; lanoline, 3 vj; adipis ad, 3 j. This to be well rubbed in four times daily. Occasionally I have varied this with an ointment of green mercuric iodide, 20 grains to the ounce, employed night and morning; or have substituted 2 drachms of the (British Pharmacopœia) red iodide ointment for the same quantity of unguent. plumbi iodidi. With this, 15 grains of bromide of potassium are taken internally at bedtime, to subdue the always present neurosis. Proceeding on this method, I have not found

it necessary to subject any such case to operation since 1889 (i. e., the patient being a young girl); and then surgical measures were resorted to only in consequence of the individual's impatience. To sear the mamma with multiple scars is a practice meriting emphatic condemnation, and even such an operation as Thomas', designed to preclude subsequent marking, is hardly ever necessary. The following are cases in point, samples of many similar:

Case 1.—Ada N., aged 24 years, single, seen July 17, 1893. At the upper part of the left breast an induration of the parenchyma forming a flattened nodular tumor one inch in diameter. After a single week's employment of the unguent. plumbi iodidi, with lanoline, there was only a slight trace of the "lump."

Case 2.—Patty D., aged 23 years, single, seen January 15, 1894. To outer side of left nipple, flattened and indurated breast-tissue, constituting a "lump" one-half inch in diameter, one year's duration; conspicuously tight stays. On the 22d nothing abnormal could be felt.

Case 3.—Annie E., aged 20 years, single, domestic servant. Mamma large; ill-defined hypertrophic induration of outer half of left breast, of four years' duration. Treatment from October 28, 1889, till November 25th, then no tumor and nothing abnormal could be found.

Case 4.—Louisa Emily M., aged 23 years, single, shop-woman; out-patient April 28, 1890. At lower border of left breast a tumor the size of a hazelnut; noticed three years. Attendance till August 11; then "perfectly cured." Has since married and borne two

children; writes (December, 1893) to say he has no further trouble.

Case 5.—Annie J., aged 37 years, single, out-patient June 11, 1888. At the upper part of the left breast was a tumor of at least several years' duration, equal in size to a large walnut. Operation had been recommended by a cancer specialist. Under inunction by the lead iodide ointment thrice daily entire disappearance of the "lump" in seven weeks. Seen two years afterward; no further breast trouble.

Case 6.—Ellen O'K., aged 30 years, married, no children; out-patient January 19, 1891. Hard nodule the size of a pea to outer side of each breast; left largest. Intermittent attendance (from Colchester) for several weeks. On June 1st no trace of either was perceptible.

Case 7.—Amelia B., aged 24 years, single. Nodule the size of a large pea deep in gland-tissue of left breast. Attendance from April 4 to May 21, 1887. Use of the iodide ointment thrice daily, with entire resolution.

Case 8.—Rose N., aged 18 years, single. A tumor as large as a walnut, lobulated, at pectoral margin of left mamma, noticed eight months. Out-patient May 2, 1887; treatment until July 11, then lost sight of. In December, 1893, states in reply to inquiry, that some enlargement persists, but that all inconvenience has ceased, and that she has never required any further treatment.

Case 9.—Emma H., aged 19 years, single. At the age of 14 a tumor as large as an egg stated to have been removed from left breast; now scar three inches long at lower border. External to this, movable tumor size

of hazlenut. Attendance from October 3 to November 14, 1889: Seen on January 8, 1894, when no trace was to be felt.

Case 10.—Fanny S., aged 24 years, single. Induration of parenchyma at outer part of left breast, noticed eighteen months. Treated from November 8, 1886, to February 14, 1887, with complete resolution.

Case 11.—Marie W., aged 28 years. At upper and outer part of left breast the tissue was hard and nodular, forming a flattened tumor one inch in diameter; noticed two months. A neurotic girl, with the usual tight stays. Treated from January 2 till March 19, 1894, when only a faint trace of the induration remained. At first the lead iodide, with 2 drachms of red mercuric oxide ointment; subsequently the former, with 15 grains of alcoholic extract of belladonna to the ounce.

The preceding would appear to have been examples of the true "fibroma of adolescence" occurring in young girls, with no obvious cause other than tight stays and a neurotic habit. At a later period small indurated tumors, which cannot be regarded as due to arrested or perverted development and which commonly own an inflammatory origin, are met with. These similarly yield to local treatment.

Case 12.—Jane H., aged 44 years, married, no children. Out-patient August 26, 1876. In the left breast an irregularly nodulated, moderately hard duration of the parenchyma, noticed six years. Lancinating pain was described, but was referred also to the opposite breast, in which was another "lump" rather smaller. Although the age was so suspicious, a diagnosis

of non-malignancy was founded on the duration of the case and the simultaneous affection of both mammae. Under the inunction four times daily of ung. plumbi iodidi, the condition wholly vanished in about eight weeks. On November 8, 1887, the date of the last recorded attendance, no trace of tumor was perceptible.

Case 13.—Louisa P., aged 34 years married, three children. Ill-defined indurated "lump" in left breast following blow three months previously. Inunction four times daily of ung. plumbi iodidi. Attendance from September 12 till December 19, 1879. Gradual resolution; on later date nothing abnormal to be felt.

Case 14.—Emma H., aged 36 years, married, four children. Softish movable "lump" at upper part of left breast, noticed three months; in right breast another smaller. A history of cancer in the family. By October 17 both tumors had all but entirely disappeared.

Case 15.—Eliza R., aged 38 years, widow. A hard ill-defined tumor at upper part of right breast, noticed two years. Treatment as usual from September 24, 1880, until January 7, 1881; then complete resolution, leaving no trace of abnormality.

Case 16.—Fanny S., married, one child two years of age. Blow from child seven months previously. Deep in left breast tumor the size of a walnut, freely movable. Treatment from December 1, 1882, until March 2, 1883, thence no trace perceptible.

Case 17.—Elizabeth B., aged 37 years, married, no children. In left breast hard nodule, size of large pea, noticed two years. Treated with unguent. hydrarg. iodidi viridis, night and

morning, from January 25 till February 15, 1888, with perfect resolution.

Case 18.—Emily W., aged 37, married, one child one year of age, not nursed. Tumor size of walnut, noticed six months, movable, at upper part of left breast. Treatment as usual till February 23, then nothing abnormal.

Case 19.—Mary D., aged 27 years, single. Out-patient November 19, 1888. Blow two months. Marked induration at outer part of left breast; great pain. On November 26 nothing to be felt.

Case 20.—Emma B., aged 34 years, single. Seen June 17, 1889. In left breast a nodule size of hazelnut, flattened, not hard, movable, noticed four days. On June 24, no tumor was discernible.

Case 21.—Martha P., aged 46 years, married, no children. On July 6, 1885, a tumor the size of a small orange, movable, elastic, at upper part of left breast. Duration one year. Attendance till July 20, then tumor much smaller. Not seen again, but writes (December, 1893) to say she has had no more trouble.

Case 22.—Eliza B., aged 37 years, married, two children, youngest eight years of age. Small lobulated tumor at lower edge of left breast, noticed six weeks. Occasional lancinating pain for several years. Treated from September 12 till October 17, 1892. Complete disappearance of "lump."

Case 23.—Mary L. P., aged 30 years, single. Blow eighteen months; pricking pain a fortnight. Tumor the size of a large bean at upper part of right breast. Treated from November 6, 1893, till December 4, then only a trace remained.

The following is a somewhat analogous instance of irritative hyperplasia in the youthful male breast.

Case 24.—Mr. H., aged 22 years, sent for consultation in May, 1891, by Dr. McElpatrick, of Mere. Irregularly lobulated induration of left breast, forming a flattened tumor one inch in diameter, noticed two to three months, and apparently caused by slight blows when jumping up to a clerk's high desk. Treated for three weeks with the lead iodide ointment, then for five days with lin. belladonna; complete resolution.

A third class of "dispersible" tumors is afforded by inflammatory conditions in, or cystic dilatation of, lactiferous ducts. And in this may be included small sebaceous cysts of the areola.

Case 25.—Mrs. F., aged 48 years, no children; subject to eczema of the areola. Just below right nipple prominent, very hard red swelling, size of hazlenut, noticed nine days only; no fluctuation. In great consternation, as an operation had just been advised by a distinguished gynecologist. Treatment from November 14, 1893, till December 2. Liniment of iodine locally for a week, then the lead iodide ointment; complete resolution.

Case 26.—Frances P., aged 37 years, single. Out-patient December 15, 1882. Small soft tumor, size of large pea, one inch from left nipple. After a single week's treatment only faint trace discoverable; no further attendance

Case 27.—Jane P., aged 27 years, married, no children. Above right nipple a pea-like nodule, evidently a dilated duct of fifteen months' duration. Treatment from April 6, 1891,

till April 20, then nothing abnormal found.

Case 28.—Emma W., aged 63 years. Sebaceous cyst of areola, blackish in color, size of pea, of two and a half years' duration. Seen October 28, 1889. By November 11, entire resolution.

As already hinted, treatment such as that indicated, if adopted for a malignant tumor, will only waste the precious time available for curative eradication before secondary infection has ensued; and it is of no avail for the cystic benign growths which appear during the devolution of the female breast. A prompt, and at the same time careful, diagnosis is therefore essential. After the adolescent period (25 years) even simple fibroma yield far less readily than before development is complete, and the earlier after their appearance these are dealt with, the better.—*American Journal of the Medical Sciences.*

BACTERIOLOGICAL EXAMINATION OF THE VAGINAL SECRETION DURING PREGNANCY.—With a view to determine the presence or absence of germs in the genital tract of the pregnant patient, where no possibility existed of contagion, Kröng (*Deutsch. med. Woch.*, 1894, No. 43) has made a series of examinations in the Leipzig clinic. He had 48 cases, and his results show that the natural resisting power of the tissues is the same to both spores and cocci. Streptococci were killed in a very short time. Two days is the longest time in which germs introduced within the body remained alive. The genital tract is aseptic in healthy women when from 40 to 72 hours have elapsed since the last examination.—*Am. J. M. Sci.*

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ROBERT D. JEWETT, M.D., EDITOR

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Editorial.

THE FIRST AMERICAN SYM- PHYSIOTOMIES.

The subject as to who was the first to perform a symphysiotomy in this country has excited considerable interest. Dr. Charles Jewett, of Brooklyn, performed the operation in the latter part of 1892, but later a *claim* was made by Dr. Coggin that he had done the operation some six or eight months earlier. This claim, however, he was not able to verify by facts.

Dr. R. P. Harris, who has done much work in the collection of statistics, has remarked: "*In your reports and statistics wait until you hear from the back-woods.*" It now appears that the operation was performed in Texas as early as April, 29, 1880, by Dr. Joel O. Williams, of William Penn, Texas.

He has reported three cases, the first on April 29, 1880, the second on July 15, 1884, and the third in May, 1889. All three of these cases, therefore, antedate any other case so far reported. A year ago the *Medical News* received a paper from Dr. Williams, reporting these cases, but it was so astonishing the editor refused to publish it until the matter had been investigated. The past year this investigation has been going on by the editor of the *News* and Dr. R. P. Harris, and the evidence obtained is so voluminous and so conclusive, that both the investigators are convinced of the truth of Dr. William's claim. The first case was for the delivery of an illegitimate child, the mother being only thirteen years old. Mother and child both survived. The girl had been in violent labor for eigh-

teen hours, and delivery was only possible by means of the separation of the pubic bones, which idea occurred to Dr. Williams spontaneously.

The second operation was done upon Mrs. S. W. Wicks, of Washington county, Texas, July 15th, 1884, for a badly contracted pelvis. In this case, even after the separation of the pubic bones, it was impossible to deliver except after the child's head had been perforated. The mother recovered, and gives her sworn testimony as to the truth of the claim. The third operation was done in May, 1889, upon a negro woman about eighteen years old. She had been in convulsions about thirty hours. The woman died, but the child was saved. This case was sworn to by B. F. Dobson, a wealthy and prominent farmer of Washington county, upon whose premises the operation was performed, and who assisted Dr. Williams in the operation, Dobson having once been a medical student.

In his editorial comment upon this report Dr. Gould says: "We could easily fill a whole issue of *The Medical News* with details and incidents in connection with these cases, especially of the first, and with excerpts from the letters of Dr. Williams, and every line, we are certain, would be voted of absorbing interest by our readers. We almost regret the lack of space to do so, and at least wish that a historic essay might be written concerning the matter. We can imagine no novel of more intense interest, no sociologic study more bountiful in instruction. Here was a man who spontaneously conceived, and thrice carried out, the operation of symphysiotomy before any American surgeon. He was

frankly deficient in preliminary education and placed in a frightful tangle of most distressing and possibly tragic circumstances, no hint of which we have been able to give. [Dr. Williams has sworn himself to secrecy in the first case.] He was surrounded by a set of conditions the dramatic interest of which we have scarcely seen equalled upon the stage. Through it all he has carried himself, and out of it all he has brought himself with a combination of shrewdness, and modesty, and probity beyond all praise. . . . The back-woods are often deficient in literary qualities, and in many of the arts of modern medicine, 'push' and self-assertion included, but they are often profoundly ingenious, and not seldom exhibit an unchronicled heroism quite equal to any that vaunts itself in populous places."

Dr. Jewett, in a letter to the *New York Medical Journal*, expresses himself as not thoroughly convinced as to the truth of these remarkable cases. He says: "An humble practitioner in an obscure settlement of less than a score and a half of people professes to be the first in all the world, outside of Italy, to follow the example of Morisani. Yet not a particle of medical evidence is adduced to support the allegations of the claimant. No other physician was present at the alleged operations, nor is the testimony of any of the doctor's colleagues invoked in proof of the truthfulness of his assertions. The acceptance of these reports is based in one case on the affidavit of the woman said to have been operated upon, and in another on that of an alleged lay witness. Coggin's claim, it will be remembered, rested on similar affidavits, a method

of proof for which a physician in good repute among his fellows could have no use in substantiation of a mere scientific statement of medical facts.

"Of one of his cases Dr. Williams says: "The pelvis was so contracted transversely that it was with some difficulty that two fingers could be passed"—a condition in which delivery by symphysiotomy could have been clearly impossible. Yet the child, he tells us, was extracted by forceps and saved, and that, too, after the mother had been for two or three days in labor, and for thirty-nine hours in convulsions. Singularly enough, no laceration, hæmorrhage, sepsis, or other operative complication appears to have occurred in any of these cases.

"Brilliant as were these successes, nothing was known of them, in all these years, by the local profession. Remarkable as was the surgical genius implied in so bold a departure as symphysiotomy would at that time have been, especially in a rural district, Dr. William's fellow practitioners, as diligent inquiry has shown, did not till now know that he made any pretense to operative work of any kind. Reputable physicians in the two counties in which the doctor has resided, including members of the State board of medical examiners, denounce the story as preposterous. Not one can be found who believes it. More than that, recent investigation by the local profession, as I am credibly informed, has disproved it.

"It is to be regretted that our distinguished American statistician should have lent his indorsement to such ill-founded claims as this and the Coggin recital. Until these reports of early

American operations can be made to bear at least the semblance of truth, the credit for the general revival of symphysiotomy must be accorded to Pinard, of Paris. So far as yet appears, he performed the first modern pubic section outside of Italy."

A TAX ON DOCTORS.

The doctors of this State must hereafter pay an annual tax of ten dollars into the State Treasury for the privilege of practising medicine! That is the edict of the mongrel Legislature which has been in session in Raleigh, and which has attracted the attention of the whole country by the many strange things they have done. But can an evil tree bring forth good fruit? Verily, no.

There is no class of men who give so much gratuitous service for the benefit of their fellows as do physicians. Physicians are the only class of men who, for the sake of humanity, use their best endeavors to destroy the very conditions which bring them work and upon which their support depends. The physician is subject, and expected to respond, to the calls of those who need his services, even when there is no prospect of remuneration, and even though those calls carry him into the presence of dangerous infection and require him to drive for miles through midnight storms upon roads which abound in pitfalls and dangerous places. When called to see the child of one of these legislators which may be sick of scarlet fever or diphtheria, he must not refuse though he does run the risk of conveying the contagion to his own household, and though his only reward, when the child is restored

to the ungrateful parent, be, "I'm much obliged, doctor, till you're better paid." And we venture to say that did the medical profession adopt a rule to serve no man until his past debts were settled, there would be many of those legislators, who voted to levy this tax, who would curse the ambition and chance that carried them from their plows and bar-rooms and placed them in the legislative halls of the State Capital.

With nearly every physician perhaps fifty per cent. of his work is done without any expectation of reward, and of the other fifty per cent. from a quarter to a third is never collected. Did physicians refuse to serve the poor, the counties would be obliged to employ medical attention for them at an expense of thousands of dollars a year. And when pesti-

lence visits a community the doctors would be condemned, and rightly so, if they should follow the example of others who might be able and flee for their lives, leaving the poor to perish in their helplessness. The doctor must stay and do, though he die, and this is often the case, and for this privilege he must now pay a license of ten dollars a year. It is a damnable outrage, worthy of the gang who perpetrated it, and we feel sure that among the first things done by the next Legislature will be the repeal of this section. In the meantime, we suggest to those doctors who may have to serve one of the solons (?) who voted for this tax, that they increase their charges to cover the amount of tax. If the legislator be a dead-head, as he is now a dead letter, cast him off and let him go to ——? no, the county doctor.

Reviews and Book Notices.

A System of Legal Medicine. By Allan McLane Hamilton, M.D., Consulting Physician to the Insane Asylums of New York City, etc., etc., and Lawrence Godkin, Esq., of the New York Bar. Illustrated. Vol. II. Cloth, royal octavo, 738 pages. E. B. Treat, 5 Cooper Union, New York. 1894.

The publication of this volume will be appreciated by numbers of the medical and legal profession, for it completes the most thorough work on Medical Jurisprudence yet produced. The second volume is written and edited with equal ability with the first.

After a short chapter on the duties and responsibilities of medical experts,

by Mr. William B. Hornblower, Dr. Hamilton presents a clear and interesting essay on the medico-legal bearings of insanity, in which he considers the symptomatology, etiology, course and termination of insanity, and the relation of the various forms of insanity to criminal and civil acts.

Mr. Calvin S. Pratt contributes a short paper on the mental responsibility of the insane in civil cases, and Dr. B. Sachs furnishes an instructive essay on insanity and crime. The articles on birth, sex, pregnancy and delivery, by Dr. Currier, and an abortion and infanticide, by Dr. Charles Jewett, are carefully prepared.

Deserving of especial attention is the chapter on Surgical Malpractice, by Dr. George R. Fowler. This chapter should be read by all those whose duties make them liable to be called into court to defend themselves against the charges of an ungrateful patient. Suits for recovery for malpractice are becoming of more frequent occurrence, not, certainly, because less care is exercised by surgeons, nor yet, we believe, because patients are less appreciative, but because lawyers or shysters, who are anxious for fees and who persuade patients into thinking they can easily secure a few thousand dollars, are becoming more numerous. At the same time there are cases where a surgeon is guilty of malpractice, either intentionally or through gross ignorance. From such the patient should recover.

The work now completed is likely to be a standard authority for years to come.

Syllabus of Gynecology. Based on The American Text Book of Gynecology. By J. W. Long, M.D., Professor of Gynecology and Pediatrics in the Medical College of Virginia, Richmond, Va., etc., etc. W. B. Saunders. Philadelphia, 1895. Price, \$1.00,

Thus Syllabus is in similar style to Dr. Senn's Syllabus of Surgery. It is an outline of the teachings of the most advanced thinkers of the day, as set forth in An American Text Book of Gynecology. It will prove useful to teachers who use this text-book; to students, no matter what text-book they use, and may even be serviceable to the practitioner who desires to take a hurried glance over a certain subject. It is interleaved for the benefit of those who wish to add a note. The author has not "hesitated to differ from, or to add to, the *Text-Book*," whenever in his judgment it was best to do so.

Correspondence.

VIABILITY AT SIX MONTHS AND TWENTY-ONE DAYS.

Editor N. C. Med. Journal:

I desire to report the following case of early viability:

Mrs. G., newly married, had her last menstruation March 13th, 1891. She was delivered of a female child October 3d, 1891, being the two hundred and first day of gestation (six months and twenty-one days).

The child was twelve inches long and weighed two pounds. It required nearly an hour to establish respiration.

It did not cry at all. No nourishment was given except from the breast, and that not until the third or fourth day, for it was expected to die every hour. However, by great care its life was preserved, and the little girl is now over three years old, strong, healthy, and bids fair to live as long as anybody. Very respectfully,

C. H. LEWIS, M.D.

Farmers, N. C.

Consider the merits of this JOURNAL and send your subscription—published twice a month—\$2.00 a year.

Abstracts.

ON THE CLINICAL CONFUSION BETWEEN DISTENSION OF THE GALL-BLADDER AND MOVABLE KIDNEY.—(Morris, *British Medical Journal*).—Points of similarity in the two conditions which suggest a causal relation between them are (1) movable kidney and enlarged gall bladder are each much more frequently met with in women than in men; (2) the right kidney is many times more frequently movable than the left; and (3) movable kidney and enlarged gall bladder often occur in the same person. The explanation of the association of the two conditions in the same person is probably found in tight lacing. This, the author believes, causes displacement and mobility of the kidney, displacement of the liver and kinking of the gall ducts with the formation of gall stones as a result of obstruction to the ready flow of bile. Some of the symptoms which are common to both are, both may present a tumor in the right hypochondriac and umbilical regions, which may be capable of being pushed back into the loin or over to the left of the median line, in both the tumor is more or less firm, or elastic, and smooth; in both it may be very tender or not at all so; in either case it may be, or seem to be, round or oval, or shaped like an egg, a pear or a sausage; both may have either a resonant or dull note on percussion in front; both give rise to nausea, flatulence, pain after eating, and constipation; either may give rise to paroxysmal attacks of severe colic, the maximum intensity of which is referred to the situation below the ribs on the

right side of the abdomen. In enlarged gall bladder these attacks of colic are due to the sudden impaction of a gall stone in the cystic duct; in movable kidney to kinking or rotation of the ureter or renal vessels. Either may give rise to jaundice, gastric and intestinal catarrh, or even peritonitis, though neither does so in the usual run of cases. With either there may be considerable displacement of the colon and small intestine. In neither case does the condition of the urine help us, and sometimes it actually misleads, as there may be albumen in the case of distention of the gall bladder, or bile in the case of movable kidney.

There are some conditions of the gall bladder which render the confusion all the more probable; (a) the enlarged gall bladder is sometimes so much elongated and so curved that it assumes the reniform outline; (b) it can in some cases be pushed quite back into the loin and there felt with the fingers pressed into the ileo-costal space; (c) the liver in some instances is so much displaced towards the pelvis that the gall bladder, if enlarged, gets doubled back beneath the liver, and is felt more as a loin tumor than as an abdominal one. Conversely, there are some conditions of the kidney which cause it to resemble an enlarged bladder. (a) The kidney in some instances is tilted as on an inclined plane from behind forwards, with its lower end just behind the anterior abdominal wall, and then in position and direction it closely resembles an enlarged gall bladder; (b) the kidney is sometimes adherent to the right lobe of the

liver as well as to the gall bladder, the adhesions allowing of free movements of the kidney across the umbilicus as well as back into the loin, yet not without dragging upon the liver.

How can we diagnose the one class of cases from the other? The first and most important thing is to bear in mind that the enlarged gall bladder as well as the kidney is a frequent cause of *movable* abdominal tumor. This is far from being sufficiently recognized. The second is, always to inquire if there has been a distinct attack of jaundice. The third is that the tumor caused by an enlarged gall bladder can in almost all cases be invariably felt, whereas a movable kidney (unless also enlarged) cannot. The latter is sometimes easily detected, at others not at all. An enlarged gall bladder is always easily felt by pressure on the front of the abdomen.

Fourthly, the fact that the size of the tumor varies from time to time goes for nothing in the diagnosis, unless it is clear that with the diminution of the swelling there invariably follows a marked increase in the quantity of urine voided. Movable kidneys are frequently of smaller size than normal, and are often degenerated in texture as well as diminutive in size; but for all that they have a tendency to swell from vascular turgescence, or, if hydronephrotic, from accumulation of urine; owing to their shifting position they are also more palpable at one time than at another. A distended gall bladder also will vary in size if the cystic duct is blocked by a calculus which from time to time slips back into the gall bladder, and thus opens the channel for the escape of the pent-up bile or mucus. But with few ex-

ceptions there is always evidence of some swelling as long as the cause of the obstruction remains unremoved. Fifthly, a gall bladder with calculi feels much harder than a movable kidney.

A sixth feature is the range and character of the mobility. However free the movements of a gall bladder, they take place in the arc of a circle the centre of which is a point beneath the edge of the right lobe of the liver. Around this point the free or lower extremity can be moved to the left and to the right of a vertical line drawn through the axis of the swelling, and further in the direction towards the left than towards the right. It can be pushed upwards and it can be also pushed backwards; but unless the liver, as a whole, is unduly mobile,* the gall bladder cannot be pushed downwards towards the pelvis, though it descends a little on deep inspiration.

The kidney, on the other hand, moves bodily from place to place within the limits of its loose connections; it will go up or down or inwards towards the median line or beyond it, and it has an especial tendency to slip, like a greasy mass, beneath the finger-tips upwards and backwards, into its normal position—unless prevented from doing so by the pressure of the other hand on the abdominal wall above it. The kidney, in other words, has a tendency to spring back into its proper position in the loin; whereas the enlarged gall bladder, though it can, in many cases, be pushed so far back into the loin that its free end can be readily felt in the ilio-costal space behind, has the tendency to spring back again

*The whole liver is sometimes movable to a very remarkable degree.

to its position in the front of the abdomen.

In presence of a distended gall bladder it is generally possible to grasp the kidney, or at any rate its lower extremity between the two hands by pushing the tumor forwards and towards the median line with the back of the finger-tips of the right hand, and at the same time pressing forwards the loin with the fingers of the left hand. In this way the two organs are separately distinguished at the same moment. The kidney may likewise be thus found to move independently of the tumor formed by the gall bladder. This can often best be accomplished with patient lying on the left side.

In the descriptions of the symptoms of movable kidney too much stress is apt to be laid upon an undue hollow-ness and resonance, with diminished resistance, in the loin. These are very unreliable symptoms (1) because in some positions of the trunk and thighs there is much hollowness in the ilio-costal space when the kidney is in its proper place; (2) the mass of muscle and fat in this region often prevents a tympanitic note being elicited when the kidney is displaced; and (3) the natural position of the kidney is so much under cover of the lower part of the thorax that hollowness of the loin and resistance in the ilio-costal have no bearing upon it naturally.

Another diagnostic feature to which too much importance has been attached is the relation of the colon to the tumor. Normally the colon is on the outer side of the right kidney and the transverse colon below and behind the gall bladder; and Ziemssen pointed out that if the gut is inflated with air, the kidney is pushed backwards and

the gall bladder upwards. But it is so common for the ascending colon and the hepatic flexure of the colon to be considerably displaced inwards and downwards, especially when either of these affections exists, that the result of inflation is very misleading. The so displaced colon, on becoming inflated, will push the kidney upwards, just as, in the natural position of the viscera, it does the gall bladder.

Aspiration of the swelling has sometimes been proposed as a means of diagnosis; but apart from the danger attaching to this procedure (unless the tumor is adherent to the parietes) there is the further objection that the character of the fluid withdrawn may afford no assistance at all. In many cases the contents of a distended gall bladder are of a dropsical nature, very like the fluid of a hydatid cyst; in other cases it is glairy mucus quite unstained by bile; and in others again it is pus.

In the doubtful cases an exploratory incision is the only means of positively deciding the diagnosis; and as this is quite free of risk, it should be early resorted to, with full confidence that if the tumor be an enlarged gall bladder, the earlier it is dealt with by operation the better for the patient; and that if it be a movable kidney, nephrorrhaphy will relieve the symptoms and prevent hydronephrotic changes, which shortly destroy the kidney.

TAX BETTING FOR THE BENEFIT OF HOSPITALS.—The French Government compels a certain proportion of the money made by betting on horse-races to be paid into the treasury for the benefit of the public charities. Last year \$50,000 was realized.—*Ex.*

SALOPHEN FOR NEURALGIA.—Dr. Camina (*Therapeutische Monat.*) thinking from the composition of salophen that it would be more analgesic than either salicylic acid or phenacetin alone, used it in ten cases of so-called habitual headache—cephalalgia. The majority of cases treated had suffered from headaches for periods of months and years, and had tried all kinds of symptomatic remedies, such as antipyrin, phenacetine, caffeine, etc., without such benefit. In some of the cases the pain was localized to the forehead; in others it shifted to different parts of the head. One grain was given every two hours until pain was relieved. The patients usually said that the pains gradually subsided and disappeared completely after the third powder, but sometimes after the second. In one case six powders had to be administered before the desired result

was obtained. Besides the salophen treatment in cases where there seemed to be some organic trouble, other appropriate measures were resorted to, so as to postpone repetition of the symptomatic remedies as long as possible. In two cases of trigeminal neuralgia, in the territory of the supra-orbital nerve, salophen had a marked influence upon the pains, especially in one where the neuralgia followed an attack of influenza. Phenacetine had been administered for two and a half days without benefit, and the pains, according to the patient's statement, had become almost unbearable. After administration of 4.0 gm. salophen, in divided doses in the above-described manner, the pains subsided, but recurred on the following day, though not as violently as previously, so that the powders sufficed to produce complete recovery.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

February 21 to March 6, 1895:

Meriwether, Frank T. Leave of absence for six months on account of sickness is granted 1st Lieut. Frank T. Meriwether, Assistant Surgeon, U. S. Army.

THE NAVY.

Changes in the Medical Corps of the United States Navy for the week ending March 9, 1895:

Richards, T. W., Assistant Surgeon, detached from Naval Laboratory and Department of Instruction and to the U. S. S. "Minnesota."

Stoughton, James, Assistant Surgeon, detached from the U. S. S. "Minne-

sota" and to the Puget Sound Naval Station.

Hoehling, A. A., Medical Director, detached from Naval Hospital, Chelsea, Mass., and granted three months sick leave.

Kindleberger, C. P., Assistant Surgeon, detached from U. S. R. S. Vermont and to the Norfolk Navy Yard.

Dunbar, Arthur W., Assistant Surgeon, detached from the Naval Laboratory and Department of Instruction and to the U. S. R. S. Vermont.

Parker, J. B., Medical Inspector, detached from duty in connection with the investigation of the Ford Theater disaster and to the Hospital and Yard Portsmouth, N. H.

McMurtrie, D., Medical Inspector, in addition to present duties to duty in connection with the investigation of the Ford Theatre disaster.

MARINE HOSPITAL SERVICE.

For the thirteen days ending February 28, 1895:

Carter, H. R., Surgeon, to assume temporary command of Cape Charles Quarantine during the absence of P. A. Surgeon T. B. Perry, February 27, 1895.

Kalloch, P. C., P. A. Surgeon, is directed to rejoin Station at Cincinnati, Ohio, February 21, 1895.

Perry, T. B., P. A. Surgeon, to proceed to Brunswick, Georgia, Quarantine, for temporary duty, February 27, 1895.

Houghton, E. R., P. A. Surgeon, granted leave of absence for two days, February 18, 1895. Leave of absence extended five days, February 22, 1895.

Blue, Rupert, Assistant Surgeon, to proceed to San Francisco, California, for duty, February 23, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

We regret to learn that a younger son of Dr. W. J. H. Bellamy is in New York suffering an attack of appendicitis. We trust the operation which has been performed may be entirely successful.

Dr. Augustin H. Goelett, of New York, contemplates opening, shortly, a private sanitarium for the treatment of gynecological cases.

The Forty-sixth Annual Meeting of the Medical Association of Georgia will be held in Savannah April 17, 18 and 19, 1895. An interesting program has been arranged. Dr. W. F. Westmoreland is President, and Dr. D. H. Howell Secretary.

Annales D'Oculistique, the French Journal of Ophthalmology, established in 1838, has begun, with the issue of January, 1895, an English edition, published in New York under the direction of Dr. George T. Stevens.

The two editions appear simultaneously and contain the same articles.

Messrs. Parke, Davis & Co. are making good progress in the preparation of diphtheria antitoxin, and it will not be many weeks more before they will be ready to supply the remedy in limited quantities. This department is under the management of Dr. Chas. T. McClintock, of the Michigan University. The seven horses being immunized are young and healthy, having never worked and coming from a section where glanders is unknown.

The charge against Dr. Jackson, one of the oldest and most respectable physicians of Portsmouth, Va., is a very serious one. The sudden death of one of his patients was attributed by the coroner's jury to shock due to an operation performed by the Doctor in his office to produce criminal abortion. We sincerely hope that it will

be rightly proven at the further trial of the case that the operation was not criminal.

In applying plaster bandages they should first be soaked a few minutes in warm water containing about an

ounce of alum to the pint. The alum hastens the "setting" process. The bandages should be placed in the water upon end that they may become saturated more quickly, and the surplus water squeezed out before applying to the part to be bandaged.

Reading Notices.

PULMONARY TROUBLES.—After a practice of nearly thirty years, and quite an extensive one in regard to pulmonary troubles, having used all of the emulsions, maltines and different preparations that are recommended for said troubles, I find Terraline one of the most efficient and pleasant preparations that I have ever prescribed,

W. I. MOORE, M.D.

Clay, Ky.

I have prescribed "Harris Lithia Water" in my practice, and am delighted with it in those cases in which it is indicated. In all those conditions in which there is uric acid in the system, in gouty and rheumatic diathesis, in cystitis and endo-cervicitis, causing painful micturition, in renal dropsy and dyspepsia, due to torpid liver or constipation, I have found the best results from this mineral water. Indeed, it may be used to advantage in which its formula may suggest itself, especially where Lithia is indicated. I recommend it to the public, and believe there is no superior Lithia Water in this country.

J. M. KIBLER, M.D.

J. MILNER FOTHERGILL ON COOKING STARCHY FOODS.—In one of his popular and readable treatises on the subject of digestive disorders, this well-known author says: "By cook-

ing, starchy foods are partially digested; consequently we see that intuitively, and without the light of science, man has commenced the artificial digestion of starch when only a savage and long before the dawn of history. We are now emerging out of the early darkness and stepping forth in the morning light on the path to the artificial digestion of starch—by so doing economizing the body energy which would otherwise be consumed in the conversion of insoluble starch into a soluble saccharoid." Paskola, the new medicinal food, is a *completely* pre-digested starch. It is more than this, for it presents albumen or meat-digesting ferments in combination with its starchy basis, and therefore insures the digestion of other foods in the stomach. The medical profession have long recognized the want, or rather the necessity, of a palatable form of pre-digested starch, but until Paskola made its appearance such a thing was not to be had. To insure the assimilation of starch by administering it in an artificially-digested condition, not only conserves energy as pointed out by Dr. Fothergill, but it practically guarantees an increase in weight. Thus it is that Paskola has met with such phenomenal success as a flesh-producer, and its digestive properties make it almost a specific in many forms of gastric indigestion.

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No. 7.

Original Communications.

A CASE OF TWIN LABOR WITH ABNORMAL PRESENTATIONS; WITH COMMENTS ON THE INCOMPETENCY OF MIDWIVES.

BY J. THOMAS WRIGHT, M.D., Salisbury, N. C.

On October 2d, 1894, I was hastily summoned to attend a woman who, the messenger informed me, was in the throes of labor, and had been for some hours, yet was unable to give birth to the child, and was "in a bad fix, Doctor"—an assertion which I fully corroborated later.

Upon arriving I found a midwife in attendance and the woman upon the floor on her knees, with her elbows on the bed, perfectly nude and an arm presenting through the vulva.

The midwife was urging her to "bear down"—with the uterus in imminent danger of rupturing from the force of the pains already present—while all were in a state of utmost perturbation and confusion, which the increasing

groans and lamentations of the unfortunate woman did not tend to ameliorate.

I finally succeeded in calming the agitated and lachrymose midwife sufficiently for her to inform me that it was a twin labor, and that one child had already been born by breech-and-foot presentation, and that the woman had been in labor with the second four or five hours.

I at once had the patient to get upon the bed in the supine position, and cautioned her not to force her pains.

I prepared my hands antiseptically, and, upon examination, found a transverse presentation, the left arm and shoulder filling the pelvic cavity and visible through the vulvar fissure—the

arm protruding—while the head occupied the right iliac fossa and the breech the left, the position being R. D. A. A loop of the cord protruded some inches and was compressed to such an extent as to abolish circulation.

Pain followed pain in rapid succession, and their intensity was frightful. The womb being unable to expel its contents, was forced directly upwards, somewhat in the shape of a cone, and its walls dangerously thinned; indeed, I was quite apprehensive lest the uterus should rupture, and, replacing the cord and discolored arm, I attempted, without an anesthetic, to perform cephalic version by the external, internal and bi-polar methods, but without success. I then tried to perform podalic version by the same methods, with the same result.

As the pains were increasing in severity and the woman suffering most acutely, I decided to use an anesthetic at once. Giving a hypodermic of atropia sulphate and some whiskey, per orem, I administered chloroform (somewhat concentrated), and soon had her well under its influence.

The pains diminished after the first few whiffs, and soon ceased altogether. Giving the chloroform to the patient's husband and instructing him how to use it, I decided to perform podalic version, and proceeded to make examination preparatory to doing so. I found the os uteri lacerated in several places, and the anterior portion, or wall, of the uterus considerably, not to say *dangerously*, thinned. The perineum was also slightly lacerated.

Washing my hands in a carbolic acid solution and anointing them, I introduced my hand some distance into the uterus, and, after distinguishing the

feet from the hands, with some difficulty brought them down consecutively. By way of parenthesis I may say here that it is by no means easy to distinguish a hand from a foot in utero.

As uterine contractions were entirely absent, I made gentle traction on the feet, with pressure from above, and brought the child down without difficulty until the shoulders became engaged. As the arms were extended, I next brought them down by hooking my finger above and behind them and pulling them forward across the face and downward.

The head next gave me considerable trouble as it was large, and there was complete uterine inertia. The occiput became engaged under the pubic arch, while the face filled the concavity of the sacrum, and as there were no contractions of the uterus, the head remained in that position—the cord posterior—and it was sometime before I could deliver it by Kristeller's method and traction from below combined.

The infant, a large male, was dead, the circulation having been abolished by pressure on the cord some time before the midwife consented to send for a physician. Methods of resuscitation were used patiently and persistently, but without avail.

It was a sad scene—an unconscious mother and a dead child! But it was only one of the many examples of the result of trusting to the ignorance and fatuity of an incompetent and unscientific midwife.

By proper treatment at the onset, in all probability a great deal of suffering would have been avoided and the child's life saved. But how many, how very many lives are entrusted, through choice or necessity, to these syc-

phantic *ignorami*, who, with their knowing air and stately tread, deliberately transgress all the laws of hygiene and asepsis, inviting puerperal septicæmia with its dangers and distress, as well as numerous other diseases! Ah! how many!

In this case the midwife had examined the patient with septic hands, had used cold water in a foul basin to wash the patient after the first birth, and had, in her verdancy, made strong traction on the child's *arm*; and after I had delivered it and placenta, wanted to place a dirty cloth on the vulva "for a spell 'til she come to"!—a procedure to which I strenuously and emphatically objected.

Cannot this evil be eradicated, or, at least, ameliorated? As progressive, scientific men, I ask the physicians of our State.

Pioneers in the advancement of medicine in other lines, will they not be also in this—a most vital one!

If the evil cannot at once be removed, cannot a law be enacted compelling all *practising midwives* to take a four or five months course in obstetrics and

anatomy, physiology, materia medica and surgery—as they relate to obstetrical cases—under some competent physician? It seems possible. Certificates could be issued by their preceptors, after examination, as evidence of their attendance.

This would be a great advancement in the right direction, and the experienced and more progressive in the profession should seriously consider the matter, freely discuss it in our JOURNAL and societies, and devise means to elevate the standard in this important branch, thereby protecting themselves and the citizens of the State as well.

Returning to the case, I may add that the lacerations were sutured and that the patient progressed nicely with antiseptic vaginal injections and small amounts of antikamnia, together with laxatives.

The breasts caused no real trouble, nor were there any unfavorable symptoms, and the woman sat up at or near the usual time—all due, no doubt, to the careful and thorough use of antiseptics.

CLIMATE OF NEWTON, NORTH CAROLINA, IN CONSUMPTION.

BY JAMES R. CAMPBELL, M.D., Newton, N. C.

Outside of the specific treatment of phthisis pulmonalis, all physicians know that cases of undoubted consumption do recover under judicious treatment and management. In this management climatic and hygienic measures are of the first importance. Experience has shown that certain places are almost, or entirely, free

from the disease, and that properly selected cases improve and recover there.

It is of such a place I wish to write. Twenty-four years of observation and experience have so firmly convinced me of the inestimable value of this place in the relief and cure of consumption, that I feel it a duty to call

the attention of physicians to the facts.

I know no scientific reason why this little town should be better than its neighbors in this respect. I only know that experience has shown me that it is, and that persons coming to Newton from no greater distance than twenty miles, have at once begun to get relief and have recovered from phthisis, even when the loss of lung tissue was very great. I know, too, that consumption almost never originates here. Even the acute diseases of the air passages are so rare that I have been in full practice without seeing one case of pneumonia for periods as long as five years. Of consumption itself, in a population of from 1,200 to 2,000, there have been six deaths here—three of them were far advanced in the disease when they came—in twenty-four years.

I could give you numbers of instances in which family histories confirm my proposition—instances where families have grown up here and separated, part going away, part remaining, when those who went away afterward died of consumption, while those who remained are well. But space at my command permits me to give the history of one family only.

P. F., a Pennsylvanian, came to this place early in the century. He married and reared a family of nine sons and seven daughters. The sons emigrated South and West. Some married, but all except one died early of phthisis. This one married, returned to this place and brought up a family of seven sons and three daughters. The eldest son and daughter settled here and are now living here in good health at about fifty and forty-eight years of age

respectively. The second son went South and two years afterward died, after six months illness, of tubercular consumption. The third son also went South, lived three years and was attacked with tubercular laryngitis and phthisis, and died within the year. The fourth one, a railroad bridge builder, was away from here six years before the same trouble cost him his life. The second daughter married, moved away and twelve years afterward died at her home in a southern state of phthisis. The fifth son went to Texas and has not been heard from for several years. The last news reported him ill with consumption. The third daughter went to make her home with a relative in a neighboring State. After living there two years, she was attacked with hemorrhages from the lungs, and all the symptoms of consumption rapidly developed. About three months after the hemorrhages began she was brought back here, confined to bed, emaciated, with hectic fever, night-sweats, constant cough and evidence of forming cavities. It looked as if she would soon die. But she began to improve, and, after a steady improvement for eighteen months, she was considered well, and now, a year afterward, she is in good health and shows no sign of lung disease. The two youngest brothers live here and are in good health at twenty-eight and thirty years of age.

Do you say that all of this is a co-incidence? It is a very remarkable one. And when case after case of the same character can be produced, is it at all strange that I have come to believe that cases of consumption, when not too far advanced, are certain to be

vastly benefited, if not cured, by a residence here?

I believe it, by far, the best Winter Resort on the Atlantic seaboard, if not on the American Continent, for tuberculosis of the lungs. This is the opinion formed deliberately after thinking over and studying the subject for fifteen years or more.

To send a patient, in the last stage of consumption, away from the conveniences and comforts of a home to die among strangers, is inhuman, and the practice should be denounced. But cases that can be benefited by climate can, in my opinion, find no better place than Newton, Catawba county, North Carolina.

***CLINICAL LECTURE—THREE OPERATIONS FOR EXTRACTION OF CATARACT—ONE ARTIFICIAL RIPENING OF SENILE CATARACT.**

BY JAMES MOORES BALL, M.D., Professor of Ophthalmology and Otology in the St. Louis College of Physicians and Surgeons; President of the Tri-State Medical Society of Iowa, Illinois and Missouri.

To-day, owing to the abundance of clinical material at my disposal, I shall show you several cases of cataract on which the operation of extraction will be performed. I always extract without the iridectomy unless a specific reason exists for the making of an iridectomy. This is a more difficult operation, but, if all goes well, the patient is left with a nice round pupil, in place of the large coloboma of an iridectomy.

Case 1.—The first patient, a colored woman who does not know her age, presents bilateral cataract. Each eye is ready for operation so far as the ripeness of the lenses is concerned. We will operate upon the left eye. The patient's face has been thoroughly cleansed, the conjunctival cul-de-sac washed with a 1-2000 solution of bichloride, and cocaine has been instilled.

We insert the Knapp specuim; you will notice the palpebral opening is unusually small, causing the woman to look like a Mongolian. The distance from the inner canthus to the root of the nose is greater than usual, and the eye is small. This state of affairs will make the operation more difficult than usual. Not being ambidextrous, it will be necessary for me to stand in front of her in operating upon the left eye.* A few instruments are now handed to my assistant and we begin. The eyeball is turned downward by forceps held in my left hand and a small Graefe cataract knife is passed through the apparent corneoscleral junction and brought out at a point opposite. Now, by a gentle sawing motion the cut is made, the knife is laid aside, a cystitome of the angular variety is passed into the eye, turned on its axis and made to incise

*Delivered before a section of the senior class of the St. Louis College of Physicians and Surgeons, January 31, 1895.

*The writer has recently learned to extract cataracts with his left hand.

the anterior capsule of the lens. Now, stepping behind the patient, I take the cataract spoon in one hand and a spatula in the other and deliver the lens. You will notice that considerable pressure is required—more than in the operation with an iridectomy, since the resistance of the iris must be overcome. The iris, by its own elasticity, withdraws into the eye, but the pupil is not in the center of the cornea. After cleansing the eye of all fragments of cortex, we will gently stroke the iris back into place, leaving it with a central pupil. The speculum is now removed, the lid is closed gently and a moist dressing of bichloride applied. The other eye will be bandaged.

Case 2.—This man, Mr. H., aged 60, a German, was operated on some time ago by some one who removed a cataract from his right eye; the result was not satisfactory, and he wants me to remove the opaque lens on the left side. He cannot count fingers, but readily tells the location of the windows. Having him well prepared for the operation, I will now remove the cataract. This is a much easier case upon which to operate. The eye is of good size, the palpebral fissure of normal width, and the eye promises a good result. You notice that I pick up another knife, it being my purpose never to use a cataract knife the second time without sharpening it. The knife and other instruments are dipped into boiling water for a moment. I pass the knife in the usual manner and the section is made without a hitch, and those who are near to the patient will notice how the cornea collapses after the cut is made. The capsule is now ruptured in the usual manner and the delivery effected without difficulty.

The dressing of this eye will be similar to that of Case 1.

Case 3.—This old negro, like many of his class, does not know his age, but he appears to be about 70. He has been blind in both eyes for three years. Each lens looks white like milk, and it is in such eyes that we find Morgagnian cataracts—one with a hard nucleus surrounded by liquid. You will observe here a marked arcus senilis. This, however, has no bearing upon the healing of the wound. The usual incision is made, only smaller than in the preceding cases; the capsule is ruptured and now you see the milky substance running out of the capsule. It is a case of Morgagnian cataract. The hard part of the lens is delivered through the natural pupil. In this case the iris remains in contact with the lips of the wound. The pupil has been cleared of all debris and the iris has been stroked back into place, but immediately prolapses. Perhaps the use of an eserine solution would keep it in place, but I will not take any chances. The iris is cut off, the angles of the iris are freed from the corneal wound, and the usual dressing applied.

Case 4.—This man has noticed failing vision for two years. Inspection shows bilateral immature cataract. He readily counts fingers at six feet. It is in such cases, where both lenses are becoming opaque slowly, that an operation for artificial ripening is indicated. There are many methods of procedure, all of which have been advanced since 1881, when Foerster, of Breslau, began his operations. He was in the habit of making an iridectomy, after which massage of the lens was made by a strabismus hook, the collapsed cornea

intervening between the lens and hook. It was an indirect method. The operation which I prefer, and which bears Bettman's name, is a direct trituration. The pupil is widely dilated by atropine, the usual antiseptic, and cocaine solutions applied, and we commence. I introduce a keratome into the anterior chamber, not for the purpose of performing an iridectomy, but simply to make an opening. Through this opening a spatula is passed, and, by a concentric motion, the anterior capsule of the lens is trituated. Care must be taken lest we rupture the suspensory ligament and get inflammatory symptoms. We desire to break up some of the fibres of the capsule so that some

of the aqueous humor may come in contact with the lens. The lens will absorb aqueous, swell up and ripen in a few weeks. Hence, such cataracts which otherwise might require years for maturity, will often be ripened and removed within five or six weeks. The spatula is withdrawn, a few more drops of atropine instilled and the eye is bandaged. The nurse is instructed to apply atropine twice a day and the bichloride dressing is used. As you see, I have made no attempt to hurry. Where everything is properly planned and systematically executed, an oculist can remove a half dozen cataracts within the limit of an ordinary clinic hour.

Selected Papers.

HOW TO DO ABDOMINAL SECTION WITHOUT FUSS, FEATHERS AND FOOLISHNESS, WITH IMMUNITY FROM SEPSIS.*

By JOSEPH PRICE, M.D., Philadelphia, Pa.

The profession was very slow to acknowledge the correctness of the pathology of pelvic diseases in women, as demonstrated by Bernutz and Goupil. Their almost mathematical presentation of the subject was received with ill-expressed disregard, and characteristic criticism, both harsh and unprofessional. Mr. Tait did much to open the way for the ultimate reception of their views, and his work must always stand a monument to the period of the most remarkable progress in

*Read before the Medical Society of the District of Columbia, November 28, 1894.

modern surgery. Cavilers may carp, and envy strive to belittle, but to the minds of the generous and just, there is no question as to his merit. From 1872 to 1888 there was a remarkable regularity in the advancement of both the theory and practice of pelvic surgery, but since this latter period there is much to discourage the practical and progressive mind, which is never satisfied to abandon progress, or to go forward, looking backward, or to be satisfied with obsolete or obsolescent methods. If we take the trouble to look up the papers of this latter period,

we shall find them already quivering with doubt and quavering from disaster. Many men who, without training or drill, or previous education in any branch of medicine, rushed into the abdominal field as the road to ready fame, have begun to retrace their steps, doubt the correctness of their absolutely ignorant, but no less positive statements, and to hedge behind their so-called conservative opinions, for which their crude work had built the foundation. This had been well had it only reacted upon themselves, but the effect was of wider extent, and the reading profession were misled into considering their cry for quarter, as an honest surrender. This defecation, indeed, has got beyond the line of current literature, and invaded the presumably standard books of the day. Men who are supposed to be an authority on what they write, because they are backed by medical colleges and standard publishers, are deluding the profession by a counterfeit presentation of experience, and present that as general which is only the shady result of their own limited knowledge, which presumes to teach, while it has yet all to learn. The pathology of these pseudo-instructors is at fault, and their conclusions, surgically considered, are not to be trusted. Of pathology, there must be a working knowledge, not necessarily a microscopic one, but such information as will enable the operator to understand what he is likely to meet, why it is thus and so, and the results of certain complications, and the necessity of dealing with each one specifically as it arises. To start out in any line of work, with a fair show of success, there must be a preparation both sub-

jective and objective. The objective preparation in pelvic work is applied to the patient. She is to be duly purged and her intestinal tract thereby freed from *débris* which may interfere with post-operative comfort. An empty bowel has better tone than a distended one. For the purpose of catharsis, calomel and salines should be used, according to the peculiarities of the patient. Light, simple, liquid nourishment is to be preferred, while in feeble cases the antecedent administration of strychnine is of value. The patient is to be thoroughly cleansed and kept clean, while all the rules of personal cleanliness are to be applied both to the nurse and the surroundings of the patient. It often is questioned whether successful operation can be done in and under conditions which do not permit of rigid cleanliness, so far as the room itself is concerned. My answer, from an extensive personal experience is, that the best results have been obtained, under the most adverse conditions, but these have only been reached by extra care and painstaking avoidance of accidental introduction into the immediate field of operation the filth of the surroundings. This last assertion is to be taken literally. Cleanliness by soap and water is all that is required. I do not use nor advocate the use of any chemicals whatever, and consider that the operator who has need of corrosive poisons to render him fit for the operating table, had better take a months vacation to prepare himself for the safety of the patient. Chemical solutions bring into the field of operation an additional danger of irritation. This is great enough owing to the nature and character of the interference.

Here, as in all other operations, the less the paraphernalia and complexity, the less the danger of annoying delays and impediments to speedy and careful, uninterrupted work.

The incision should be as short as is consistent with the removal of the diseased part. This is of importance also at the close of the operation. The smaller the incision, the less we have to deal with in closing. If the tumor is irreducible, the incision must be longer than otherwise. Adhesions are to be dealt with as they are found, and not passed by. Ligation of bleeding points must be carefully attended to. All points of bleeding do not necessarily require a ligature. The hæmostatic forceps very readily controls many of these, especially in the incision. Too numerous ligatures introduce an irritating element into the surgery of the pelvis and abdomen whose evil is far-reaching, and should be avoided. All pathological conditions should be removed as they are discovered. Adhesions freed, *débris* consequent upon these removed and the really diseased organs carefully separated and tied off. Leaking vessels must be controlled and must be primarily handled so as to excite as little hæmorrhage as possible.

This is accomplished by breaking the adhesions down with the cushioned end of the finger, using the nail practically not at all, and the scissors or knife never, unless where it is absolutely necessary to tie. After adhesions are loosened and ligatures placed, the toilet is to be looked to. Drainage is the most essential feature, and this is begun by flooding the abdomen. The abdominal douche is as necessary for successful surgery in the peritoneal

cavity as is soap for common cleanliness. The sneerers at drainage all with common consent acknowledge the efficiency of flooding out the abdomen to clear it of *débris*, pus clots and the like. Not only does it do this, but it is a powerful stimulant in shock, and enables many a successful recovery to be made, where otherwise we would lose our patient. By drainage, I mean glass drainage, not a gauze masquerade, simply continues the good work initiated by abdominal flooding. It permits the escape of lymph, the smaller clots, the serum from the irritated surfaces, and conduces to bringing the peritoneum into a more natural condition. Gauze simply abstracts fluid as such, and does not permit of the elimination of anything else whatever. It is interesting to note in this connection that those operators who so bitterly opposed drainage some little time ago, now commonly pack the pelvis full of their so called gauze drain from vagina to and through abdominal incision, and with the same consistency yet violently oppose supra-vaginal extra-peritoneal hysterectomy, which, when perfectly done, does away with all intra-peritoneal tinkering, and closes without even leaving a sinus. All gauze-packing opposes prompt healing, except that by adhesions, and therefore the less of it we use, the better we are off, except in those cases in which it is desired to wall off a cavity, such as the seat of a suppurating appendix, which it is impossible or rash to remove at a primary operation. The closure of all abdominal wounds should be made with silkworm gut. This makes a perfect splint for the abdominal wall, is non-irritating and safe. For other needs of abdom-

inal work, I find fine silk the desideratum; it has many advantages over catgut, but, above all, is safer and cleaner. Again, it is much stronger in the finer threads, and therefore permits the use of a less bulky thread. After the essentials of the operation comes the after-treatment. Here I find no reason to diverge from the lines I have so often laid down, to wit: that rest, position and simple diet, without anodynes, are the essentials. I do not allow my patients to be shifted for the first twenty-four to thirty-six hours, for the reason that in abdominal wounds and tying, absolute quiet, I hold, is just as essential as in other surgery, such as that of bones or plastic work, and, after all, much of abdominal and pelvic surgery is only plastic work on a large scale. Milk should be avoided as a diet in most cases. Anodynes are not indicated, save in those cases in which the opium habit has been previously contracted and the operation urgent.

The vast majority of patients are better without it, in every way, physically, mentally and morally.

So much for the real necessary common-sense of abdominal section.

As to the opposite of this, in all that pertains to abdominal work of every sort, there has been so much written and so much said, suggested and attempted, that just at the present time we are in a tremendous muddle. Men who do not know how to drain cry out: "There is no need of drainage in abdominal work. The man who is in favor of it is a dirty operator." These same men would not argue drainage away from other branches of surgery, and yet in the abdomen, where in many cases the dirt and

débris are boundless, they waive this important step in the technique of abdominal section aside, forgetting that assertion is not argument.

These same men are ever ready to adopt anything new or original, be it suggested by a nightmare or hypnotic ecstasy, only so it attract by its air of novelty, be it by a patent abdominal sewing-machine or a new German Salvation vacuum, wherein both patient and operator are made to breathe sterilized ethereal ozone and perspire some never-failing, never-ending antiseptic.

Boiling water to these ogles of foreign fads has become so cool that it will no longer scald or cleanse (at least so it is believed in Germany, where they ought to know), and in its stead is imported a real German bake-oven, which can be heated hotter than the scriptural fiery furnace, and the little sinning microbes, unlike Shadrach and the other two, cannot stand the strain. All this is a combination of fuss and feathers. Let us see. Instruments baked, assistants oxalated, permanganated, bichlorided, floor tiled, with the chance of three out of five of the nurses menstruating or ending it up with a discharging irritating leucorrhœa, with the water-supply and drain communicating directly with a sewer, and the operation attended, perhaps, by fifteen or a dozen men, all of whom have come from filthy street-cars or dirty carriages, or, perchance, even from stables, if, perhaps, they have an oversight of their own conveyances. This is fuss, feathers and foolishness. The trouble is that too many err in imagining that cleanliness comes from antiseptics. This is not so. The man who cannot be clean without bichloride, cannot be clean with it.

Being clean by spasm is trying to become a society man by buying a dress suit. It is all right for theory, but it won't work. If looks were all, and nothing back of them required, the goal would be reached; but not so. Put it down that the men who dwell the most on the ultra-refinements of Listerian surgery, do so only in the hope of succeeding some way to overcome failures, in themselves, which they are loth to acknowledge.

This is not fuss or feathers or foolishness alone. It is false pretense. He parades to the learner and to the outside world that all surgery is reduced to the hoo-doo of chemicals, or the Trendelenburg position, and that these make surgeons and surgery easy. We are waiting for the book, *Every Man his own Surgeon: A Crying Need to Protect us from Quackery*.

Fuss in surgery is of two kinds, as are most other sensations, subjective and objective. Objective sensational fuss is of the sort I have briefly and generously and gently referred to, withal, seriously. Subjective fuss is due to the natural tendency, drilling and disposition of the operator. I have known an operator to leave his patient before closing the incision to discuss a specimen removed. Only a pathological devotion completely overshadowing the surgical instinct, can explain a freak like this. In my work I hate stupidity, whether in assistants, nurses or on-lookers. I hate it worse in myself. When I quarrel with myself in my work, I know I am a ring-leader in a conspiracy against the life of my patient. If I learn that an operator curses his sponges, nurses, damns the eyes of his needles and sends his knife to a place hotter than

his Dutch bake-oven, I look for many of his patients in another direction.

One thing an operator has to learn. He is the head, judicial, legislative and operative in all that concerns his patient. He is bound to see that all is in working order before he begins work. He is to know that all around him are trust-worthy and efficient. If he is in doubt about this, he has no right to begin work.

If he begins work without skilled assistance, he must know himself capable of going through it without assistance. In the event of failure, he has no right to bulldoze those around him or lament their inefficiency. Subjective fuss combined with objective feathers reduces surgery to a farce and the operation often to a tragedy.

THIOL.—Dr. Dillon states that this drug differs from ichthyol in that it has no disagreeable odor; the internal administration is not accompanied by disagreeable gastric disturbance; used externally, it does not more than slightly stain the clothing, and even this can be removed by washing. It seems to be especially curative in the different forms of eczema, acne, herpes, erysipelas and other inflammatory processes. In contusions and subcutaneous hemorrhages it possesses wonderful power of causing the absorption of the poured-out material. It has also been found useful in rheumatism.—*Notes on New Remedies.*

The meeting of the North Carolina Medical Society is near at hand, and *now* is the auspicious time to send your subscription to this JOURNAL. What say you, Doctor.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

NORTH CAROLINA BOARD OF HEALTH—FIFTH BIENNIAL REPORT.

We have received the Fifth Biennial Report of the North Carolina Board of Health as submitted to the Governor by the energetic and efficient Secretary, Dr. Richard H. Lewis. The report makes an octavo volume of two hundred and forty pages, and shows plainly that the motto of the Board is aggressive warfare against disease and education of the masses in sanitary matters. The wise laws enacted by the Legislature of 1893 placed the Board in position to do more practical, result-producing work than ever before, and the report of the Secretary shows that the opportunity was made much of. The section requiring all physi-

cians to report immediately to the Superintendent of Health cases of contagious disease occurring in their practice and the quarantining of these cases by the Health officer, has been generally observed, and without doubt has prevented in many cases a spread of the disease with many resulting deaths.

As we have before urged, a reliable system of vital statistics is absolutely necessary before it is possible to demonstrate the beneficial effect of organized sanitary effort. At least in the larger towns of the State this can be had if the town authorities will enact ordinances following the admirable form suggested on page fifty of the report. At present there are no statistics required of marriages and births. Mortuary reports (not alto-

gether reliable) were received during 1894 from thirty-one towns with a population of 87,350 whites and 61,000 colored. The total death-rate from these towns was, for whites, 10.6 per thousand, and for colored 17.5. The rates for 1893 were 13.18 for whites and 20.25 for colored, thus showing a decrease in the rate for each race of about 3.0 per thousand. We hope that the matter of adopting better health ordinances will be again pressed upon the town authorities, and with better results.

One of the most interesting features of the volume is that embracing the proceedings of the Board in Convention at Salisbury. We believe it to be the intention of the Board to have these Health Conferences, or Sanitary Missionary Meetings, as the Secretary happily styles them, in two or three different sections of the State each year. We know of no plan more calculated to bring the Board into contact with the people, thus giving them practical information upon health matters, awakening the masses of the different neighborhoods to the vital importance of bettering their sanitary condition and letting them see for themselves that the State Board of Health is the zealous custodian of the health and lives of the people of the State. As soon as they really understand this, fears for the life of the Board need harrass us no more.

Among the excellent papers read at the Health Conference were one on the Prevention of Tuberculosis, by Dr. S. Westray Battle, and one on Drinking Water and Malaria, by Dr. Richard H. Lewis, both of which are prepared for the special instruction of the laity. These papers have been

printed in pamphlet form for distribution, and the Secretary of the Board, at Raleigh, will cheerfully furnish to any of our readers in this State as many of either paper, or both, as they will distribute. The paper on Drinking Water and Malaria should be placed in the hands of every family in the eastern section of the State.

The report is very full and satisfactory, and we congratulate the State upon having so efficient and energetic an officer acting upon our health board.

THE GOLDSBORO MEETING.

The coming meeting of the State Society promises to be a memorable one. Goldsboro being situated at the intersection of the Southern Railway and the Atlantic Coast Line is very accessible and indications point to a large attendance. Reduced rates will be given by all the railroads in the State and the hotels have made the unusually generous rates of \$1.50 per diem. We are assured that there will be ample accommodation for all. The local profession are already arranging the social features, which will undoubtedly be especially pleasant. We have had an inkling as to the nature of this entertainment and know whereof we speak. The sessions will be held in the Opera House, which is very convenient to the hotels, and the Board of Examiners will hold its sessions in the Armory. Both of these halls are well suited to the purposes for which they will be used, so that the Society will be more comfortably provided for than is usually the case.

We would again remind members

who intend to present papers that the titles should be sent in to the Secretary, at Wilmington, by the 15th of April, so that they may be given a place on the program. We would also remind authors of papers that, even with the limitations placed on the read-

ing of papers and the discussions at the last meeting, there were several voluntary papers crowded out, and we would urge them, therefore, to boil their papers down as much as will be consistent with a thorough and intelligible expression of their views.

Reviews and Book Notices.

A Manual of Bandaging. Adapted for Self-Instruction. By C. Henri Leonard, A.M., M.D., Professor of the Medical and Surgical Diseases of Women and Clinical Gynecology in the Detroit College of Medicine. Sixth Edition, with 139 Engravings, Cloth, octavo, 189 pages. Price \$1.50. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

The main feature for commendation of this book over other similar works is that each illustration shows the direction of the various turns of the bandage with arrow-heads, and each turn is properly numbered; this renders the book a self-instructor to the reader of it, who has but to put the various bandages about the limbs of an office companion a few times, when the "trick" of its application upon a patient has been learned. It takes the place, in this way, of hospital drill. Besides the "Roller Bandages," the various "Ts," "Cravats," "Slings," "Tailed," "Adhesive" and "Plaster" bandages and "Immovable Dressings" are given. The book is divided into sections treating of "The Bandages of the Head," of "The Body," of "The Upper Extremity," of "The Lower Extremity," "Knots," "Strappings," "Compresses" and "Poultices," with full description of making and

applying the same. There is an illustration for nearly every bandage described. It has been recommended as a text-book in various medical colleges and hospitals in this country, and has had two editions sold abroad. A medical student could profitably spend his vacation evenings in mastering the application of bandages by using this book as a guide, and to a practitioner it would not come amiss.

Laboratory Guide for the Bacteriologist. By Langdon Frothingham, M.D.V., Assistant in Bacteriology and Veterinary Science, Sheffield Scientific School, Yale University. Illustrated. W. B. Saunders. Philadelphia, 1895. Price 75 cents.

In four chapters the author outlines a scheme which will prove of great service to laboratory workers. In the first chapter he discusses Bacteriological Technique; in the second Staining Methods, of which he describes no less than sixteen; in the third Preparation of Nutrient Media; and in the fourth Imbedding Tissues for Cutting Sections. Many practical hints are given in the first chapter which will save the inexperienced much time and worry. Alternate pages are left blank for notes,

Notes on the Newer Remedies,

Their Therapeutic Applications and Modes of Administration. By David Cerna, M.D., Ph.D., Demonstrator of Physiology and Lecturer on the History of Medicine in the Medical Department of the University of Texas, etc., etc. Second Edition. Enlarged and Revised. W. B. Saunders, Philadelphia. 1894. Price \$1.25.

The first edition of this little volume made its appearance something more than two years since, and it will be remembered that it received favorable notice in the pages of this JOURNAL. Just at this time a space of two years sees many additions to the list of new

remedies, and though the large majority of these are intended to bring reputation and notoriety to the inventor or discoverer, rather than amelioration from suffering to sick humanity, it is well that physicians be acquainted with these preparations, and be able to take advantage of the few that do prove useful. In this volume Dr. Cerna has brought his work up to date, or as nearly so as could be expected, and has incorporated the most recent physiologic and therapeutic data in regard to these remedies. An index of diseases has also been added, which will prove useful.

Abstracts.

CHANGES IN AN ENLARGED PROSTATE EIGHTEEN DAYS AFTER CASTRATION.—Griffiths (*Brit. Med. Jour.*) has had an opportunity of studying the effects of double castration upon the hypertrophied prostate, by the death of a patient from gangrene of one leg eighteen days after the operation was done. The patient was a man aged 74, who had cystitis for many months. The prostate, examined per rectum, was about the size of an ordinary orange. Micturition was very frequent and very painful, only a few drops being expelled at a time. During the second week after operation he was able to empty the bladder fairly well. Examination of the prostate showed the following changes: (1) Proliferation of the columnar cells lining the glandular tubules; (2) acute fatty degeneration of the cells thus accumulated in the lumen of the tubules, with their disintegration and ultimate

disappearance; (3) contraction of the tubules after a conversion of their naturally tall and slender columnar cells into low cubical or almost flattened small cells; and (4) in the stroma, proliferation of connective tissue and unstriated muscle-fibre cells. It appeared that in parts many of the newly-formed cells in the connective tissue had disappeared or been converted into fibrous stroma in which there were no muscle-fibres or only traces of them. In those parts of the stroma where the changes had taken place quickly the newly-formed cells were swollen and filled with fine granules of fat.

If a comparison be made between the structure of this enlarged prostate eighteen days after bilateral castration and that of an ordinary enlarged gland from a man whose testicles had not been removed or not destroyed by disease, it will be seen that the glan-

dular tubules and the intertubular connective tissue, with its unstriped muscle-fibres, have undergone definite structural changes. In the tubules the epithelial cells had undergone, first, proliferation so as to form new cells; secondly, well-marked fatty degeneration; and lastly, disintegration followed by their complete disappearance. In this manner the tubules had, in the majority of instances, become greatly reduced in size. In the intertubular connective tissue similar changes had taken place, namely, proliferation of the connective tissue cells, fatty degeneration of the new cells, their disintegration and ultimate disappearance. In like manner the unstriped muscle-fibre cells had undergone proliferation, and the new cells thus formed were indistinguishable from the connective tissue cells among which they lie. In short, the cell elements first proliferate, then degenerate and ultimately disappear, leaving a comparatively small amount of fibrous connective tissue in their place.

But in the ordinary enlarged prostate gland the structural changes above described as occurring after castration, so far as I have been able to observe, do not take place. There is no general proliferation of the epithelial cells lining the glandular tubules, or of the cells in the intertubular connective tissue; and no fatty degeneration of the cells followed by disintegration and ultimate disappearance. In the enlarged gland there is, however, usually a tendency, in small patches here and there in the substance of the gland tubules, to the disappearance of the muscular fibres in the stroma, and to the formation of fibrous connective tissue, and this may in some instances

extend through the substance of the gland.

The inference, therefore, from the case I have related is that these structural changes in the enlarged prostate eighteen days after bilateral castration are preliminary to the ultimate atrophy of the glandular tubules and to the conversion of the prostate into a small, firm and fibrous mass, containing only remnants of the tubules, and but few traces of its muscular fibres.

TECHNIQUE OF USING ANTITOXINE.—Chaffee (*N. Y. Med. Jour.*) gives the following points in the administration of antitoxine: First of all is the selection of a reliable preparation. Next, a suitable instrument, which is a mammoth hypodermic syringe. A very good one is made by George Ermold, No. 312 East Twenty-second Street, New York. An ordinary hypodermic syringe is of no use whatever. The Ermold Antitoxine Syringe holds ten cubic centimetres, one ordinary dose of "No. 2 curative." Repeat this dose in from ten to twenty-four hours, according to the severity of the case. From one to three cubic centimetres of No. 1 will protect. The administration of antitoxine is simply hypodermic medication on a very large scale. The serum being aseptic, the same precautions and general laws of antisepsis must be observed as in making any operation. If the operation is not conducted with proper regard for asepsis, trouble will follow, and the reputation of the remedy will be made to suffer by careless operators. The syringe should be taken apart, and, with the needle, sterilized by boiling for five minutes in a solution of bicarbonate of sodium. If the cap

on the needle end of the syringe can be unscrewed, the cylinder may be filled by pouring the serum directly from the bottle. If this cap cannot be unscrewed, I sterilize a china egg-cup, into which I pour the serum for filling the syringe. The inside of the egg-cup runs to a point and none of the serum is wasted. After the instrument and cup are sterilized, I fold them in a fresh napkin or towel and place them in my instrument bag, ready to be taken to the patient's home. The locality selected as the site of medication is either between the shoulder-blades, on the breast, on the thigh or on the gluteal region. On account of the large amount to be injected a place is selected over which the skin is quite free. The skin over the point selected should be cleansed with brush, soap and water, and after this a solution of bichloride or permanganate of potassium. The size of the needle used and the amount of serum injected—ten cubic centimetres—make a local anæsthetic quite necessary, especially with timid children. For many reasons I should object to the use of cocaine for this purpose. As an anæsthetic I use a small piece of ice, with only one layer of napkin between it and the skin, held on the site of medication for about two minutes only. Upon its removal pour over the site a little more of the bichloride or potash solution, cold; pick up a fold of the skin at once, and pass the needle well in for about an inch and inject very slowly. When the needle is removed, apply the tip of the finger for a minute; next apply cotton and collodium dressing to seal the puncture. The collodium dressing should be allowed to remain for two or three days, when it

may be removed and a dressing of vaseline and cotton applied. Slight discoloration of the skin over a spot about an inch across will be found.

TREATMENT OF VARICOCELE.—Wallis (*Int. Med. Mag.*) discusses the operative treatment of varicocele. At St. Bartholomew's Hospital during five years there were 107 operations for this condition, 48, or 44.85 per cent., being done by the subcutaneous method with a percentage of 93.75 non-septic recoveries. Of the 59 cases done by the open method there was suppuration, mostly slight, certainly, in 37.28 per cent. The details of the subcutaneous operation are as follows: The scrotum and pubes are shaved and well washed with soap and water the day before the operation and again the morning of the operation—at all events a few hours before—when a scrubbing-brush may with advantage be used. Ether is then brushed over the parts and a towel wrung out in one to one-thousand solution of perchloride of mercury is bandaged over the prepared skin. A saline purge is given the morning of the operation, and, if necessary, castor oil may be given over-night as well. At the operation the cord is grasped just below the external ring with the upper hand and about three-quarters of an inch below with the lower hand; the vas deferens is then separated and kept back and the veins are held in front; it can be quite readily ascertained by the finger and thumb, when placed on opposite sides of the scrotum, that nothing intervenes between the apposed layers of skin, so that any risk of perforating a vein may be minimized.

The cord is then handed over to an

assistant, who should always be asked whether he is absolutely sure that the vas is behind his thumbs. The operator then takes a curved needle, threaded with silkworm gut, and passes it through both layers of the scrotum between the vas and the veins; the ligature is held and the needle withdrawn. Another ligature is passed in a similar manner about three-quarters of an inch below this

Now the assistant lets the veins slip through his fingers and merely holds the skin. The operator changes the sharp-pointed needle for a blunt-ended aneurism-needle, which, unarmed, is passed through the perineal puncture *over* the veins, i. e., between the veins and the skin, and then cut through the distal puncture; the aneurism-needle is then threaded with the end of the ligature, which was passed in *below* the veins and withdrawn with the ligature. The same manœuvre is carried out with the other ligature. Now the mass of veins *encircled* by the ligatures, which are tied very tightly, the lower one *first*; the ends are cut quite close to the knot and the skin pulled up over the knots, which disappear into the scrotum and the operation is finished.

Collodion pasted over a double layer of blue gauze is applied to the punctures, a small piece of blue wool is placed over the gauze and a T-bandage completes the dressing. He emphasized the point of tying the lower knot first, as it prevents the accumulation of blood in the included portion of the veins, which necessarily occurs if the higher ligature be first tied. The advantages claimed for this operation are (1) the short time it takes; (2) the absence of all blood-extravasation,

with its attendant evils; (3) the complete safety in careful and skilled hands; (4) the excellent results which are obtained. It is generally not necessary to anæsthetize the patient; the operation can be done under cocaine. If the precautions mentioned above are thoroughly carried out, especially that of feeling the two scrotal surfaces in apposition, with no veins intervening, the operation is a perfectly safe one.

Great care should be taken in the preparation of the ligatures, which should be boiled for half an hour and then kept in either perchloride solution one to five hundred, or in one to twenty carbolic lotion.

The only case of subcutaneous ligature for varicocele which went at all wrong in my own practice was where a silk ligature was used which had been insufficiently boiled; some slight suppuration occurred subcutaneously, although in the event the patient did very well.

Another point in the after-treatment is to insist that the patient shall keep in bed for at least seventeen days. There is occasionally some difficulty in making patients understand this necessity, as they feel so well after the first two or three days.

The details of preparation in the open operation are precisely similar to those which have already been described in the subcutaneous method. These having been carefully carried out, an incision two inches in length is made through the skin, beginning immediately above the external ring and carried downward; this should go as deep as the sheath round the veins, and before this is opened it is very essential that all bleeding should be stopped, or

else immediately the fascia is cut through, the blood is soaked up by the loose areolar tissue found underneath the fascia, and this has a material effect on the after-success of the operation. When the hemorrhage has been stopped the sheath is opened and the veins just below the ring will bulge out. These veins are now separated from the vas and an aneurism-needle passed beneath them, armed with moderately stout silk. Another ligature is passed in a similar manner, at a distance between three-fourths and one and a half inches below the first, according to the amount it is thought necessary to shorten the cord.

The lower ligature is tied first, then the upper one, and the intermediate mass of veins is cut away with scissors, care being taken that at least a quarter of an inch is left in front of the ligature. Now a straight needle, threaded with quite fine silk, is passed through the quarter inch of veins mentioned above, and the ligature is drawn tight enough to approximate closely the cut ends of the veins, and thus the necessary shortening of the cord is produced without any risk of the ligature round the veins slipping, and so causing secondary hemorrhage—a risk which is a very possible one if the cord is shortened by uniting the ends of the ligatures which pass round the veins.

Drainage for the first twenty-four to forty-eight hours is advocated by some surgeons, but he is strongly disposed to regard this as not only unnecessary, but a possible source of infection and a distinct bar to primary union.

It has always been his custom to sew up the wound by a continuous sailor-stitch suture of horse-hair, taking great care that the skin edges are evenly

apposed and by putting in many stitches.

Before closing the wound it should be swabbed out with one to twenty carbolic lotion, which should immediately be taken up by a dry sponge passed round the wound. The strong lotion has an immediate bleaching effect upon the tissues, while he has never seen any harm come from it.

When the skin wound is closed the line of incision is brushed over with absolute alcohol, and then a two-fold strip of blue gauze is pasted on with collodion, a firm pad of blue wool is fixed over the wound with a T-bandage, and the operation is complete.

Unless there is some special reason, the wound should not be dressed for a week, and the stitches should be removed on the ninth day. The patient should not be allowed to walk until the seventeenth day. The success of these operations depends upon the strict carrying out of details.

IS THE APPPOSITION OF PERITONEUM TO PERITONEUM A SURGICAL ERROR? —(*Brit. Med. Jour.*, January 5, 1895.) By J. Greig Smith, M.B., of Bristol, England. During the past two years Smith has deliberately and intentionally, where possible, acted as if it were wrong to approximate peritoneum with peritoneum, and the result of his experience has been to convince him that for all purposes where sound, speedy, permanent union is desired, the apposition of two intact serous surfaces is a surgical mistake. Where the union sought need not be strong and is desired to be only temporary, seroserosal apposition may be adopted. As intestinal evacuation and drainage in obstruction was introduced by this author,

he has become responsible for the healing of a considerable number of cases of intestinal fistula and artificial anus. This is managed by an extra-peritoneal operation, made possible by detaching the parietal peritoneum for some distance around the fistula. The parietal peritoneum, still adherent to gut, being detached, the bowel, with the peritoneum, can easily be delivered through an incision traversing the cutaneous and muscular layers, and the opening, large or small in the gut, is closed by apposition of raw surfaces. Sero-fibrous apposition, or apposition of a peritoneal surface on the raw wound, is carried out in such operations as gastrostomy, hysteropexy, enterostomy, colostomy, cholecystostomy and the numerous operations which involve the drainage of cysts and abscesses. The author believes that the same rule would probably hold good with regard to intestinal surgery.—*Int. Med. Magazine.*

TREATMENT OF THE BURNED.—(Dial, *Louisville Med. Monthly.*) When called to see a burnt patient, go prepared to treat the patient as well as the burn. If the burn is at all extensive, you will probably have psychical and physical shock to treat, and little can be done for the immediate relief of pain by local applications. See that the clothing is not burning; wrap patient in a blanket and give opium in large doses for the double purpose of relieving pain and vaso-motor paresis. Stimulate, if necessary. Do not examine the wound until after reaction. Nothing is lost by waiting; on the contrary, time has given the patient, friends and probably the physician, an opportunity to get over the excitement

that is always occasioned by a person afire. Cut the clothing away; where it is stuck fast to the surface leave it after trimming away the margins. Leave the blisters to spontaneous rupture beneath the dressing; the serum is aseptic, if not antiseptic, and after drying forms, in some cases, a natural protective. At no time during the treatment allow lint or cotton to come in contact with the denuded surface. Absorbent cotton spread very thin between two layers of gauze and saturated with

R.—Carbolic acid, - - 3 iv
Olive oil, - - -
Saturated solution
(aqueous) borax, aa 3 viij
M. Shake well.

Envelope the burnt surface, and over this spread a layer of cotton batting, which is slow to absorb and prevents evaporation; finish with a roller bandage. Leave this dressing until the third day, when it is to be removed. Then irrigate the burn from one-half to one hour with a "hot as can be borne" antiseptic solution. Dry thoroughly with baked cloths and apply

R.—Carbolic acid, - - - 3 ss
Boric acid, - - - 3 j
Bismuth subnit, - - 3 ij
Petrolatum, q. s., - - 3 j

M.—Spread on linen, finish as in primary dressing.

This dressing is to be renewed daily. Continue the hot wash until all the sloughs separate, then discard it.

Never apply a dry powder to a burn; an ointment is more grateful to the patient and results the same. Don't apply cocaine to a burn. As a prognostic pointer I will say the pregnant will abort, the tuberculous will die and the babe will recover.—*The College and Clinical Record.*

A NEW OPERATION FOR GLAUCOMA.

—George L. Walker, F.R.C.S., of Liverpool, presented a paper to the International Congress of Ophthalmology, held in Edinburgh last summer, in which he described a new operation for chronic glaucoma.

He states the well-known fact that iridectomies are of doubtful utility in this disease, and he has long since abandoned them. He believes that the earlier successes that followed iridectomy were due to the cystoid cicatrices that often followed the operation, which were lamented by the surgeon. Mr. Walker's operation makes a fistula in the cornea, and is thus described in his own words:

"After cocainizing the globe, I snip with scissors, just behind the uppermost part of the cornea, a flap of conjunctiva about 1-16 inch wide by 3-16 inch long; turn this back, and then fixing the globe with forceps, I thrust through the sclero-corneal margin, close to the base of the flap, a narrow *hinge*, making an incision perpendicular to the plane of the iris, large enough to take in the flap. Then I withdraw the knife, letting out the aqueous; when it has ceased to flow, I push the flap into the anterior chamber through the incision, and leave it there. An old worn-out canaliculus knife does this very well, and also serves for the subsequent probing which the fistula requires.

"The eye is bound up for twenty-four hours and then inspected. If the flap be found to have remained in the incision, the lids should be again closed for a short time, until it be thought advisable to expose the eye. Sometimes, owing to the incision having been made too large for the flap, the

latter may be washed out, in which case it will have to be replaced, perhaps, several times, before it will be permanently retained."

The raw surface of the flap unites to the adjacent edge of the corneal incision, and as the epithelial surface of the conjunctiva will not unite with the edge of the cornea, a fistula is made into the anterior chamber. This fistula needs probing.

He says he has kept eyes alive for the last four years that would otherwise have been lost. He claims that if it does not cure these cases it will at least retard the progress of the disease indefinitely.—*Times and Register*.

In the treatment of cystitis in the female, Dr. Talier urges the importance of frequent and copious irrigations. The apparatus used for this purpose consists of a funnel of three-ounce capacity to which is attached a small-sized soft rubber catheter. The meatus should be cleansed, the catheter introduced, the funnel lowered and the bladder allowed to empty itself. The funnel is then elevated and the irrigating fluid poured in until the bladder is filled. By a repetition of emptying and filling the irrigation is carried out. Only three or four ounces of solution should be introduced at one time. In acute cystitis, attended with considerable pain and tenesmus, a solution of boric acid (ten grains to the pint), at a temperature of 100° F. should be used. In the chronic form silver nitrate is the best alterative agent. The treatment should be begun with a very dilute warm solution of this drug (1-10,000), and gradually increased until 1-1,000 or 1-500 is reached. In connection with this treatment, alkalin

diuretics are administered, water is to be used copiously, and opium and belladonna should be given as necessary to control pain and spasm.—*The Philadelphia Polyclinic*.

THE TREATMENT OF ERYSIPELAS WITH STRONG ALCOHOL.—Langsdorff (*Centralblatt für Chirurgie*, 1895, No. 8, p. 189) reports the employment of topical applications of strong alcohol in the treatment of thirty-two cases of erysipelas. Soft, thick linen compresses are saturated with the alcohol, and are renewed every fifteen or twenty minutes, being covered with dry cloth and gutta-percha tissue. If the face is affected, cotton compresses are used instead of linen, as adapting itself better to the irregularities of the surface. The compress must be saturated with alcohol, and should be frequently changed. In all cases thus treated the symptoms speedily receded. Some little discomfort was experienced from the applications when the face was involved and in the case of sensitive persons who were unpleasantly affected by the odor. The redness and tension often disappear in the course of eight or ten hours, after which the intervals of application may be lengthened. Recovery, as a rule, resulted in the course of two or three days. If the morbid process manifested a disposition to extend, the applications were made to include the new areas involved. For the dryness of the skin following the applications lanolin was found serviceable. Official absolute alcohol diluted with 1 per cent. of water was employed.—*Medical News*.

THE TREATMENT OF GONORRHOEA BY IRRIGATION OF THE URETHRA.—

(*Therapeutic Gazette*, November 15, 1894.) By H. M. Christian, M.D., of Philadelphia. The results reached in the treatment of these cases seem to warrant, according to Dr. Christian, the following conclusions:

1. That irrigation is a distinct advance in the treatment of gonorrhœa; in fact, up to a certain point it must be considered the proper treatment for that disease. It relieves *ardor urinae* and chordee more promptly than any other form of treatment. It is attended with a much smaller proportion of complications such as total urethritis and epididymitis.

2. That permanganate of potassium is the best remedy for the purpose of urethral irrigation.

3. That irrigation alone cannot be relied upon to absolutely cure specific urethritis. For the cure of the thin muco-purulent discharge which appears at the meatus in the morning, some astringent injection used by the patient himself is necessary.

4. That simple non-infectious urethritis can be cured in from ten to twelve days by daily irrigations with permanganate of potassium. The writer is of the opinion that, where it is possible to carry out irrigation of the urethra with permanganate of potassium solution twice daily, this procedure very materially lessens the duration of the disease. The solutions used were as follows: bichloride of mercury, 1 to 15,000, increasing the second week to 1 to 8,000; nitrate of silver, 1 to 6,000, increasing to 1 to 3,000; permanganate of potassium, 1 to 4,000, increasing to 1 to 2,000; trikresol, one-half to one per cent.—*International Med. Mag.*

INSANITY AND DISEASES OF WOMEN. (*Medical Record*, August 4, 1894.) By **W** Gill Wylie, M.D. The author reports three cases of reflex melancholia due apparently to genital disturbances and relieved by the cure of those conditions. In the first case, that of a woman thirty-five years of age, with hereditary tendency to mental disease, the removal of a large detached subserous fibroid that had already begun to undergo calcification seemed alone to produce a complete cure. Two other cases, one of subinvolution and one of lacerated cervix, recovered after relief of those conditions. The diagnosis of reflex melancholia, probably due to genital irritation, had been made by Dr. E. C. Spitzka in these two cases. Dr. Wylie advocates consultation with a gynæcologist in cases where melancholia is unsuccessfully treated by open air, rest and other means; where there is, as in many of these patients, a strong predisposition or an hereditary unstable brain, a guarded prognosis is advisable, even with apparent recovery.—*Ibid.*

THREE CASES OF INTRACRANIAL ABSCESSSES; RECOVERY IN EACH CASE. (*Brit. Med. Jour.*, January 5, 1895.) By Robert W. Murray, F.R.C.S., of Liverpool. The author reports three cases of intracranial abscess with trephining, evacuation of pus, and recovery in each. The first case was caused by a punctured fracture of the skull made by the sharp end of a poker. Before operation the child had loss of power in the left hand and epileptic seizures affecting the left arm and the left side of the face. The abscess was in the motor region, at the junction of the upper and middle thirds of the

fissure of Rolando, and contained one drachm of pus. The recovery was uninterrupted, and the patient was perfectly well three and a half years after the operation. The second case was caused by middle-ear disease. Before operation there was a divergent squint in left eye, left pupil was dilated, and right-sided facial palsy and double optic neuritis were present. The abscess was situated in the temporo-sphenoidal lobe and contained three ounces of pus. Recovery was uneventful, and the patient was well one year after the operation. The third case was also due to middle-ear disease. Before operation the patient presented double optic neuritis, vomiting, severe frontal headache and sighing respiration. The abscess was situated in the cerebellum and contained six drachms of pus. Recovery was prompt, and patient's health was fully restored six months after the operation. In this case a subperiosteal abscess over the mastoid process and an extradural abscess on the sigmoid sinus were opened previously to the opening of the cerebellar abscess.—*Ibid.*

In chronic cases of obstruction of the intestines Professor Keen says the history given by the patient points to a gradually increasing stenosis of the intestines. He will give a history that it is becoming more and more difficult to procure a movement of the bowels with the usual laxatives, and then again at times he will have diarrhoea.—*Coll. and Clin. Record.*

Read this JOURNAL and mention it in your correspondence with advertisers,

Correspondence.

Editor N. C. Med. Journal :

MY DEAR DOCTOR :—The following appears over the portals of the Law and Medical Department of the old University of Bologna, in Italy:

“Dum ægrotus visitatur
Et processus ventilatur
Cura te accipere;
Nam ægroto restituto,
Et processu absoluto,
Nam curet solvere.”

Hon. M. L. Towne, of Brooklyn, N. Y., a literary lawyer, has rendered the following translation into English:

“While abed the sick man's lying,
While the client's cause you're trying,
That's the time to get your fee;
For when the patient has recovered
And the law-suit's won and smother'd,
No one then will care for thee.”

Fraternally yours,

J. W. LONG.

Richmond, Va.

Editor N. C. Med. Journal :

DEAR SIR :—W. B. Saunders, Philadelphia, has recently published a Syllabus of Gynecology by Dr. J. W. Long, Professor of Diseases of Women and Children in the Medical College of Virginia. As Dr. Long is a native

North Carolinian, your readers will doubtless be interested in this work. The Syllabus is arranged after an entirely new plan, and is the first book of the kind ever written on Gynecology. It is based upon the American Text-book of Gynecology, and is intended to be used as lecture notes by both teacher and student, also for a reference book for practitioners. It is interleaved with blank leaves, which are intended for the record of additional notes and references in journals. The work has been highly complimented by many of the leading teachers of Gynecology in America, and almost without exception they say that they will recommend the book to their classes, and many of them say they will use the book as lecture notes. All agree that it fills a long-felt want and will be of immense service to every one interested in this line of work. The plan of arrangement is such that, with constant addition of references from current gynecological literature, the entire subject is kept up to date, and the book will not soon be counted a back number.

The price, one dollar, puts it within reach of all.

J. ALLISON HODGES.

Richmond, Va.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

Official list of changes in the stations and duties of officers serving in the Medical Department U. S. Army, from March 14, 1895, to March 20, 1895:

Porter, Alex. S.—The leave of absence, or surgeon's certificate of disability, granted 1st Lieut. Alexander S. Porter, Assistant Surgeon, is extended four months, on surgeon's certificate of disability.

Harvey, Philip F.—The leave of absence for seven days, granted Major Philip F. Harvey, Assistant Surgeon, is extended twenty-one days.

Heizman, Chas. L.—Leave of absence for one month, to take effect about March 10, 1895, is granted Maj. Chas. L. Heizman, Surgeon U. S. Army, Fort Douglas, Utah.

Clendening, Paul.—The leave of absence for seven days granted Captain Paul Clendening, Assistant Surgeon, is extended twenty-one days.

The attending Surgeon at Boston, Mass., will attend the sick at Fort Warren, Mass., during the absence of Capt. Clendening.

DeShon, Geo. D.—1st Lieut. George D. DeShon, Assistant Surgeon, is relieved from duty at Fort Logan, Colorado, and ordered to duty at Fort Douglas, Utah.

Walker, Freeman V., Assistant Surgeon, is granted leave of absence for one month, to take effect upon his relief from duty at Fort Trumbull, Connecticut.

THE NAVY.

Two weeks ending March 23, 1895: *Bradley, Michael*, Medical Director, ordered before Retiring Board March 20, 1895.

Hesler, F. A., P. A. Surgeon, ordered to the U. S. S. "Philadelphia."

Crandall, R. P., P. A. Surgeon, detached from the U. S. S. "Philadelphia," ordered home and granted three months leave of absence.

Young, L. L., Assistant Surgeon, detached from the Naval Hospital, Norfolk, Va., and wait orders.

Farenholt Ammen, Assistant Surgeon, ordered to the U. S. S. "Baltimore."

MARINE HOSPITAL SERVICE.

Changes in the Medical Corps of the United States Navy for the fifteen days ending March 15, 1895:

Godfrey, John, Surgeon, detailed as Chairman Board for physical examination of candidates Revenue Cutter Service, March 6, 1895.

Fairfax, Irwin, Surgeon, to inspect Cape Charles Quarantine Station, March 9, 1895.

Mead, F. W., Surgeon, detailed as Chairman Board for physical examination of candidates Revenue Cutter Service, March 6, 1895.

A. H. Glennan, P. A. Surgeon, to report at Bureau for special temporary duty, March 12, 1895.

Gardner, C. H., Assistant Surgeon, to proceed to Angel Island Quarantine Station for temporary duty, March 4, 1895. Detailed as Recorder Board for physical examination of candidates Revenue Cutter Service, March 6, 1895.

Stewart, W. J. S., Assistant Surgeon, detailed as Recorder Board for physical examination of candidates Revenue Cutter Service, March 6, 1895.

Oakley, J. H., Assistant Surgeon, detailed for duty on Revenue Steamer "Rush," March 13, 1895.

Cumming, H. S., Assistant Surgeon, to proceed to Boston, Mass., for temporary duty, March 6, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

We acknowledge the receipt, from Messrs. Frederick Stearns & Co., Detroit, Mich., of a neat and useful desk blotter and calendar combined.

The Annual Meeting of the American Medical Publishers' Association will be held in Baltimore, May 6th, convening in the parlors of the Eutaw

House, at 9:30 a. m. An interesting program is being prepared.

Location, or partnership with an old physician wanted, in village or small town (1,000 to 3,500 inhabitants), preferably in middle or eastern section of the State. Three years experience. Address W., Box 106, Salisbury, N. C.

Vassali (*Gazetta Med. Ital. Lomb.*) reports a case of sextuplets, which is said by Herf to be the first well-authenticated case on record. On the one hundred and fifteenth day of pregnancy, the abdomen being as large as in ordinary pregnancy at full term, the woman was taken in labor. One fetus was delivered by a midwife and Vassali delivered five others. They were all born alive, had separate amniotic sacs and a single placenta. The mother made a good recovery and was delivered of healthy twins the following year.

The New York Health Board has been authorized by the Legislature of that State to sell antitoxine, and will now place what is not needed in its own hospitals and in public institutions or for the treatment of the poor of New York city on sale in phials of three sizes at the following rates: No. 1, containing 600 antitoxine normal units, \$1.25; No. 2, containing 1,000 units, \$2.50; No. 3, containing 1,500 units, \$4.00.

Dr. William S. W. Ruschenberger, aged 88 years, died at his residence, in Philadelphia, March 25th. In 1826 he entered the medical service of the United States Navy and steadily advanced until when he retired, in 1869, he was senior officer in the medical

corps. In 1871 he was commissioned Medical Director on the retired list, with the relative rank of Commodore. He served in all parts of the world, and was a voluminous writer on scientific subjects. Dr. Ruschenberger was one of the founders of the Academy of Natural Sciences, and a member of the Historical Society of Pennsylvania, the American Philosophical Society, the American Medical Association and the College of Physicians of Philadelphia, of which he had been Secretary and Vice-President.

FUN AMONG THE POETS.—Some years since, David Barker, a distinguished poet in the State of Maine, after the birth of his first child, wrote and published the pretty poem:

One night as old St. Peter slept,
He left the door of Heaven ajar,
When through a little angel crept,
And came down with a falling star.

One summer, as the blessed beams
Of morn approached, my blushing
bride
Awakened from some pleasing dreams,
And found that angel by her side.

God grant but this—I ask no more—
That when he leaves this world of
pain,
He'll wing his way to that bright shore,
And find the road to Heaven again.

John G. Saxe, not to be outdone, and deeming that injustice had been done St. Peter, wrote the following as St. Peter's reply:

Full eighteen hundred years or more
I've kept my gates securely fast;
There has no "little angel" strayed
Nor recreant through the portal
passed.

I did not sleep, as you supposed,
Nor left the door of Heaven ajar;
Nor has a "little angel" left
And gone down with a falling star.

Now, ask that blushing bride and see
If she don't frankly own and say,
That when she found that little babe
She found it in the good old way!

God grant but this—I ask no more—
That should your number still en-
large,
You will not do as done before,
And lay it to old Peter's charge.

To settle the dispute between the
above authors, Judge J. W. Starr
writes and sends the following:

I read of David Barker's babe,
And Heaven's door ajar,
And how it came from glory land
Down with a falling star.

'Tis said St. Peter gave the babe;
Saxe doubts the bold assertion,
And calls upon the blushing bride
To make a different version.

Twixt David Barker and his bride
This is a sacred cause;
They know just how the baby came,
It came by natural laws.

Saxe writes of lovely summer morn,
He writes of other things,
He writes about the good old way,
New life within him springs.

God grant but this—I ask no more—
May father, son and bride
Join St. Peter in the end,
And John G. Saxe beside.

DIPHTHERIA IN LONDON AND NEW YORK.—During the last week in January there were 29 deaths from diphtheria in London, a progressive fall having taken place from 50 deaths in the week ending January 5th. The close correspondence in time with the report given in the last number of the *Journal* of a falling off of 25 per cent. in the cases of diphtheria in New York City during the same period is extremely interesting. If, as is thought by the health officers of New York, the abatement in that city is due to the use of antitoxin, may not the decrease in London be due to the same cause? It is also noteworthy that in Paris, between January 20th and 26th, there were but 7 deaths from diphtheria, the average for past years being 33.—*New York Medical Journal*.

The death of M. Dujardin-Beaumont, the well-known Paris clinician, is announced as having taken place on February 15th. He was in his sixty-first year.

Your subscription to the JOURNAL is solicited.

Reading Notices.

Pepsin is undoubtedly one of the most valuable digestive agents of our *Materia Medica*, *provided a good article is used*. ROBINSON'S LIME JUICE and PEPSIN and AROM. FLUID PEPSIN (see

page 15, this number) we can recommend as possessing merit of high order. The fact that the manufacturers of these palatable preparations use the purest and best Pepsin, and that

every lot made by them is carefully tested, before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.

LACTOPHENIN.—Strauss (*Therapeutique Monatshefte*, September, 1894) reports his experiments with lactophenin as an antipyretic. In seven cases of typhoid fever in which he administered the drug, while the sedative effects were not so constantly observed as in von Jaksch's cases, it never gave rise to unpleasant symptoms. The dose was 7 to 15 grains, and never exceeded 45 grains a day. The antipyretic action of the drug was pronounced. The writer regards lactophenin as a good substitute for perfect hydro-therapy.

In four out of five cases of facial erysipelas it lowered the temperature; in the remaining case other antipyretics also failed.

In two cases of diphtheria (one septic) the temperature fell nearly 2° C. within five hours.

In three cases of pneumonia its antipyretic action was noticeable.

In one or two cases of scarlet fever it failed to act.

In five cases of phthisis it lowered the temperature and caused profuse diaphoresis, but produced no unpleasant effects.

In one or two instances its use was accompanied with a diffuse rash.—*Univ. Ned. Mag.*

ONE HUNDRED POINTS OF PERFECTION.—It is only a few years since the Pabst Brewing Company's malt extract was first placed on the market. It was introduced as the "Best" Tonic, and through its excellence soon became a general favorite. At the great Columbian Exposition at Chicago, the Pabst Malt Extract was examined by the Government Chemist and the Board of Judges, and the result was the highest flattery that could be bestowed. Of all the host of malt productions they examined, coming both from this

country and from Europe, the "Best" Tonic was selected as the only one thought worthy of the highest rank. It was marked with the 100 points of perfection. Such a distinction has never been conferred in the history of expositions. It recognized the Pabst Malt Extract as the head of scientific malt foods and in advance of the highest previous attainments in the production of malt extracts.

BUFFALO LITHIA WATER IN BRIGHT'S DISEASE OF THE KIDNEYS, URIC ACID DIATHESIS, etc., etc.—Extract from "Report on Therapeutics and Practice of Medicine," by E. C. Laird, M.D., Haw River, N. C., read before the Medical Society of the State of North Carolina, May, 1894.

"During the last season (as resident physician at the Springs) your reporter used the Buffalo Lithia Waters Nos. 1 and 2 extensively in almost every form and stage of acute and chronic Bright's Disease of the Kidneys and Diabetes with most gratifying results. This action of these Waters cannot be attributed to the effect of the large quantity of pure water passed through the system as suggested by some writers, for in many instances the beneficial effects produced by one spring would be greatly enhanced by change to the other, and *vice versa*, showing some special curative action of each water in the individual case.

"This I attribute to two well-established effects of these Waters, first, their powerful solvent and eliminating action on Uric Acid, which is considered by Tyson and others the principal excitant of Bright's Disease, and secondly, to their nerve tonic properties, thus embracing the wide range of adaptability to the cause of trouble, whether commencing with 'mind-strain' from over-work, worry or sorrow, as suggested by Drs. Thorn, Howard and Flint in the 'Virginia Medical Monthly, May, 1894,' or to one or more of the diatheses, either Gouty, Rheumatic, Phosphatic, Oxalic, Lithæmic or Diabetic."

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Original Communications.

PLACENTA PRÆVIA.*

BY P. GUNTERMANN, M.D., Louisville, Ky.

In the year 1730, Giffart, a French accoucheur, first directed attention to placenta prævia as a cause of unavoidable hemorrhage in labor. This observation was soon confirmed by Heister, Levret and others. To-day it is a fact. Placenta Prævia is said to occur about once in five hundred or seven hundred and thirty-three pregnancies.

It has been my misfortune—perhaps good luck—in a practice extending over twenty-six years to see over seven cases of placenta prævia. In three of the cases I was called in as consultant, and four of the cases were my patrons. Of the first three two died, the third recovered, but was confined a long time to her bed with the most terrific metritis I have ever seen. All of the three children died—one undelivered.

*Read before the Louisville (Ky.) Clinical Society.

My four cases fared better. The mothers made a happy and perfect recovery; also two of the children lived. Two were extracted asphyxiated. The death of the two mothers and their babies, also the protracted illness of the third of the first series, I am sorry to say, must be attributed to inexcusable delay. My own cases were delivered promptly and with judicious expedition. It may seem egotistic, yet the result tallies with the best of modern times and treatment.

The mortality of the mothers has decreased from 40 per cent. to 10 per cent.; the death-rate of the children is from 50 per cent. to 75 per cent., and of those born alive more than one-half die within a week or two. The mother dies from loss of blood in collapse, the child, for the want of air, asphyxiated.

Cause.—Since placenta prævia is mostly found in multipara and in women who have suffered with leucorrhœa, it is supposed that a large uterine cavity, with a smooth surface, deprived of its fold and epithelium, has much to do with the aberration. Recently it has been broached, and the theory is plausible, that the impregnated ovum had become detached from its usual seat, one of the cornu of the uterus, and, instead of being lost or absorbed, had lodged near the internal os and there developed.

The placenta may be placed central or lateral. In *placenta centralis* hemorrhage is of necessity larger and more dangerous than in *placenta lateralis*; in the latter instance a woman may go on to full term and even be delivered without the loss of more blood than ordinary. The cause of the hemorrhage is due to rupture of the blood-vessels, and comes mostly from the placental vessels. We have seldom hemorrhages from placenta prævia during the first six months of gestation, nearly always during the last three months, certainly, at the onset and progress of labor. The reason for this, we are taught, is that during the first two-thirds of pregnancy the upper two-thirds of the uterus enlarge, and in the last three months the fibres of the lower segment multiply and grow rapidly. Now, also, the placenta has fully developed within the first six months, and, if placed in the lower segment over or at the side of the os internum, as the inferior third of the uterus begins to enlarge and expand it (the placenta) remains passive, does not, at least, grow in proportion to the uterine structure. The necessary con-

sequence is detachment, rupture of vessels and bleeding.

Diagnosis.—Sudden, free and unaccounted-for hemorrhage from the vagina in a pregnant woman is the first and almost positive diagnostic sign of placenta prævia. Palpation reveals an unusually globular uterus, it is not pyriform, or even ovular. The child may be readily felt through the thin walls at the fundus. On auscultation we detect the placental bruit over the hypogastric region. The os and cervical region has a peculiar boggy feel. When the os is open, the placenta central, an educated finger will at once detect the placental structure, and, when lateral, the membranes are abnormally thick and lead to the placental margin.

Prognosis.—As may be inferred from the preceding the prognosis is very grave.

From 10 per cent. to 40 per cent. of the mothers die. When the mother does not perish she is liable to be an invalid for a long and indefinite time; she is exceedingly prone to septic infection. The death-rate of the children is simply appalling. Statistics give it as from 50 per cent. to 75 per cent.

Treatment.—In the early period of pregnancy all hemorrhage from the vagina must be treated on the expectant plan, the more so if we are not quite certain as to their cause. We enjoin rest, absolute quiet of body and mind and the recumbent posture. In the latter months, with the os still indurated and enlarged, the same rule holds good—supplementary we may insert a tampon. A good cotton or charpie tampon is preferable to a C. Braun's colpeurynter or any other

artificial contrivance. The tampon will check hemorrhage, at least in a measure, and superinduce labor pains.

As soon as the os softens and opens to allow the passage of a finger, commence to dilate gradually, but surely. When dilatation has sufficiently progressed—this to be determined by the operator—turn by the bimanual or Braxton Hicks method, detach the placenta and pull one or both of the lower limbs down. Here we have a tampon the size of which may be increased by slowly pulling the limb or limbs. Detach the placenta on the side where it has the least volume, if central, detach on the side where the feet of the baby are felt. It is perhaps never advisable or safe to pass directly through a central placenta, because:

1. We necessarily tear large blood-vessels and may cause fatal hemorrhage.

2. It is by no means easy to go through such a large fleshy mass and a separation of a more or less large area of placenta from the uterine walls is unavoidable.

3. The central opening may be too small to allow the speedy passage of the child's body, or, if it does, it may disturb the proper position of the limbs or distend the head, making delivery tedious and enhance the danger from prolonged hemorrhage. Sometimes it may be well to rupture the membranes. The contracting uterus closes the sinuses, forces the body, or, more desirable, the head of the child against and upon the bleeding surface, and thus the hemorrhage is checked. This, however, is a dangerous procedure and may become the cause of fatal concealed hemorrhage.

The bleeding may cease spontaneously. When the child is dead the blood frequently coagulates in the sinuses and seals the bleeding vessels.

Dilatation is often accomplished by artificial means. Never use a sponge tent, it increases the danger of septic infection. Barnes' dilators are universally used. They ought to be inflated with air or water. Air is the only agent that will dilate them to their fullest extent; water oftentimes bursts them. These dilators act also the part of a tampon.

An *accouchement force* is not devoid of peril, yea it is at times disastrous. Should the neck not be fully obliterated, softened and dilatable, extensive lacerations are almost unavoidable, and from them abundant hemorrhages flow.

Our guide for rapid or slow delivery must be the condition of the child. If the child is dead, we can temporize; on the other hand, if it is alive, it is our duty to save it by quick and forcible extraction. Turn or use the forceps, as the case may be, and do it promptly.

Altogether, each case must be treated on its own merits, and the management must be left to the discretion and ability of the attendant.

Medicines are of little value. Quinine is an excellent oxytocic and uterine tonic; so is strychnine, which is also one of our best cardiac stimulants. Injections of whiskey or ether may be called for to sustain the ebbing life until the crisis is passed. Astringents are useless. The utility of ergot—preferably given hypodermatically—is questionable; so are local applications; yet ergot, hot and cold applications, either singly or com-

bined, and astringents may have a large share in the treatment. On this we will not now dilate.

The rule in the management of placenta prævia should be: Safety to the mother first and then to the child.

ACETANILID VS. QUININE TO ABORT CHILLS AND FEVER; AND ACETANILID AS A DUSTING POWDER.*

BY BENJAMIN H. BRODNAX, M.D., of Brodnax, La.

In 1890 I first used acetanilid in a case of catarrhal fever with convulsions, in an infant nine months old, with astonishing amelioration of all grave symptoms in fifteen minutes. My next trial of the drug was in intermittent fever in a family of three small children. The doses ranged from two to three grains, and when the time for the chills arrived the children were asleep and perspiring. I have employed the drug quite extensively, but it is especially in chills and fever that I desire to emphasize its great merit. My mode of using it is as follows:

If there is time before the chill, I give from one and a half to two grains of calomel in quarter-grain doses a half hour apart. Then, whether the bowels have acted or not, I give, according to the age, from two to six grains of acetanilid twenty minutes or half an hour before the expected chill. Gentle perspiration, with sweet and natural sleep, usually promptly follow the administration of the drug, from which the patient awakens entirely relieved and ready to go about in half an hour.

When there is not time before the chill to administer the calomel, it may

be deferred until afterward; but the acetanilid may be given immediately before or during any stage of the chill or fever, with the happy result of promptly inducing sleep and gentle perspiration. Should the desired effect of the drug, namely, sleep and perspiration—not follow its administration within a half hour, a second dose of equal amount should be given.

The after-treatment consists of an acid tonic, namely:

R.—Acidi. nitro. muriatici

dil. — — — — — f ʒ j

Ferri sulphatis, — — gr. lxxx

M.—This should stand for twenty-four hours. S.—Ten drops in water three or four times a day.

On Friday, October 19th, I was called to see a young man who had had "dumb" chills, with vomiting and severe gastric disturbances, for six days, the attack coming on daily at 1 o'clock and lasting until midnight. When I arrived, at 7 o'clock in the evening, he was vomiting thick, glairy mucus, and was unable to retain anything on his stomach. I immediately administered, hypodermatically, one-quarter of a grain of morphine and gave six grains of acetanilid dry upon the tongue. He had one slight attack of vomiting soon after, but a little later fell into a sweet and a refreshing

*Read before the Morehouse County (La.) Medical Society, February 13, 1895, by Dr. Oscar H. Allis.

sleep, from which he did not waken until 7 o'clock the next morning. As the next chill was expected at 1 o'clock, he was ordered to take six grains of acetanilid twenty minutes before. No chill followed and none have taken place since. The after-treatment with the "acid tonic" was pursued, as is always my custom.

I have now treated several hundred cases of chills with acetanilid, and without quinine, and report my success in the hope that others will be induced to give it a trial.

Acetanilid and boric acid, in equal parts, as a dusting powder, I have used extensively in ulcers, burns, etc. I find the powder especially serviceable in the excoriation of infants and fleshy people; with it I dust the funis of the newborn babe, while over the vulva of the mother I place a little cotton previously well dusted with the powder. Made into a paste with glycerin, I have used it in a vaginal tampon to allay uterine pain.

In the case of a female, sixty-one years of age, almost crazed with the itching from a pustular eruption that covered the lower part of the abdomen, vulva and anus, the powder well dusted over affected parts, after first moistening the parts with dilute carbolic acid, was followed by six hours of consecutive sleep. She was awakened by a return of the itching, and, rising, washed the parts and reapplied the dilute carbolic acid and powder, with immediate return to sleep. A great improvement was observed the next day, and in a few days the parts were well. Previous to the application of the powder she had not slept well for several nights, even with the aid of morphine.

Internally I have used it to correct a foul breath; also in dysentery and diarrhoea. When taken on the tongue and held in the mouth a few moments before swallowing, it has the effect of allaying the distressing thirst that accompanies fever.

PHYTOLACCA DECANDRA FOR EPITHELIOMA.

By E. G. GOODMAN, M.D., El Paso, N. C.

While the root and berries of the above-named plant have been largely experimented with, and have been found to possess therapeutic properties of great value, yet the green leaves of this plant possess a property which alone would entitle it to rank among the most valuable remedies of the materia medica. I refer to its power in destroying epithelioma.

The method of using the remedy is to bruise the green leaves to a pulpy mass; collect the expressed juice in a

shallow receptacle, as a plate; allow it to evaporate to a thick, pasty consistence; spread a portion of this on a piece of silk or other suitable cloth, and apply to the morbid growth.

The plaster should be removed, the part washed and a new application made twice daily. The remedy causes severe pain. It has a selective action for the morbid tissue; follows out all the irregularities of the epithelioma; causes, as it were, its liquefaction and

removal, and then acts as cicatrisant for the open sore.

As soon as all the morbid tissue is destroyed, a band of cicatricial tissue begins to spread from the periphery, and as this occurs the plaster should be cut smaller each day, so as to conform to the size and shape of the surface to be covered by it.

Under this treatment I have seen large epitheliomatous masses de-

stroyed in a few weeks and nothing but a faint scar left at the place occupied by the growth. In no case was there a recurrence at the original site.

Unlike other remedies, it can be used fearlessly; does not endanger the patient; combines within itself a caustic action and healing property, and requires to be used in the same manner from beginning to end.

Society Reports.

LOUISVILLE (KY.) CLINICAL SOCIETY.

Dr. P. Guntermann read a paper on

PLACENTA PRÆVIA.—(See page 193.)

Discussion.

Dr. Louis Frank: Dr. Guntermann has covered the ground so thoroughly that there is very little to be said. There are certain cases, while not really placenta prævia, symptoms arise like those the doctor mentioned, which may be due to the placenta being in the lower segment of the uterus and its early separation. I think the best treatment of placenta prævia would be not to delay with the tampon, but immediately, if the child is viable, to proceed to deliver by forcible dilatation—rupture the membranes bringing down the foot of the child. In this way the child acting as a tampon, of course prevents any further hemorrhage as dilatation takes place.

The mortality in placenta prævia is very great, both to mother and child,

and I think it is a question which we may consider with a great deal of propriety whether or not to induce premature labor as soon as hemorrhage became at all alarming, or frequently repeated, even though the child was not at all viable. Dr. Guntermann is certainly to be congratulated upon the results obtained in his cases.

Dr. I. N. Bloom: A year before I left college I remember the question was asked the graduating class by the Professor of Obstetrics, "*When should forceps be applied to the after-coming head?*" The class said *never*. To the best of my recollection that was the correct answer. I mention this because I heard one of the speakers say that you turn and use the forceps. I want to know whether it is the custom now-a-days to turn and use the forceps on an after-coming head?

Dr. J. W. Irwin: This is a subject in which personally I have not had very much experience. I have treated three cases of placenta prævia and seen

five all told; all three mothers recovered, but all three babies died. If I recollect correctly—these cases occurred close together and were all that I have seen during twenty odd years of practice—no case was observed before the sixth month of utero-gestation. The hemorrhages were very violent, indeed, very alarming, some of them going to the extent of almost destroying the life of the patient. The treatment which I adopted in all cases, as the hemorrhage was so alarming that I had no time to try other methods, was to produce forcible dilatation with the hand and unbuttoning, as it were in two cases, a partial, and in the third a central, implantation. In the latter case, when seen, there was a tremendous hemorrhage; the patient's room was near the head of the stairs on the second floor, and the blood, after going through the bed, streamed out of the room and I was met by it at the head of the stairs. I forced a way through the placenta, turned the child and brought down the feet. The child was dead. As soon as I could engage it in the neck of the uterus the hemorrhage ceased. I used hot water douches and allowed it to remain until firm contractions of the womb ensued. After delivering the child I used as a douche one part of cider vinegar to sixteen parts of hot water and kept up a continuous stream with a fountain syringe until all hemorrhage ceased. This method was recommended by Penrose, of Philadelphia, when he was Professor of Obstetrics in the University of Pennsylvania. Wallace also recommended similar treatment after placenta prævia and in post-partum hemorrhages where the hemorrhages were very severe.

Several years ago statistics were prepared in the State of Indiana by a Dr. King on the subject of placenta prævia, he collected all the data it was possible to obtain, which was afterward published in the proceedings of the American Medical Association. He showed that the largest number of cases of placenta prævia occurred in women during their second confinement; that primipara did not furnish nearly so many cases as multipara, and that after the second confinement the number of placenta prævia diminished.

The causes of placenta prævia are very indefinite, going back as far as the time of Tyler Smith, who said that placenta prævia was due to the fact that the ovule dropped down nearly to the internal os and there became impregnated. Cazeaux believed that the membrane on certain occasions was not so turgid or so swollen as it ought to be to prevent descent of the ovum, and therefore impregnation took place at or near the internal os, the placenta forming where impregnation took place. No matter what the case may be, it is probable that the ovum is nearly out of the womb when impregnation takes place, and whether the womb is in a normal condition or not, I think it would be a very difficult question to determine, in view of the fact that very few of these cases can be observed post-mortem at the beginning of utero-gestation. It has also been suggested that placenta prævia is often the cause of abortion in the early stages of pregnancy. I have no doubt that sometimes this occurs, although I do not remember ever to have seen a case that I could trace to this cause.

Dr. Guntermann, in his paper, makes a statement which I think would admit

of a little revision, i. e., that a rapidly enlarging uterus is the cause of the hemorrhage. That fact is not borne out, because the great majority of placenta prævia occur after the eighth month, within the last two weeks of utero-gestation. In fact, we might say that nearly all cases occur during the last three months of gestation. Now, if a rapidly enlarging uterus were the cause of the hemorrhage, the question would naturally arise, why did not hemorrhage occur before the eighth month, or before the last two weeks of utero gestation. The inference would be that hemorrhage would occur sooner if this were the cause. Again, it has been suggested that dilatation caused by taking up of the neck of the womb, liberating the placenta when attached to or over the internal os, is the cause of hemorrhage. This, in part, is probably true, but it must also be remembered that hemorrhages occur frequently before the last two weeks of utero-gestation, when the internal os has not been given up to the body of the womb—this change takes place within the last week or two of utero-gestation, and therefore cannot be considered the cause of the hemorrhage which occurs earlier in the case. The most probable cause suggested is that the uterus is always contracting during utero-gestation, that upon certain occasions the contractions became more violent than on others, and that during a very strong or firm contraction, especially in the latter stages of utero-gestation, some of the attachments of the placenta are torn away and hemorrhage ensues. Possibly this is the best explanation, because we find often in these cases that slight hemorrhages have occurred

and stopped of their own accord, without treatment or any interference.

Now, touching the question of frequency: Various statistics have been given on the subject. Johnson and Sinclair say that placenta prævia occurs once in 573 cases; others have said that it occurs once in 487 cases. The maternal mortality in placenta prævia is very great. Reed, in his treatise on placenta prævia, states that one case in every four and one-half dies. Churchill says one death occurs in every three cases. Barnes says that the mortality is placed too high, that one death occurs in every ten and one-half cases, as far as he has been able to collect the statistics.

In regard to treatment: Dr. Guntermann has touched the key-note. In placenta prævia, as in every other disease which the general practitioner is called upon to treat, he acts upon no special rule, he must treat every case as he finds it; the character and extent of the hemorrhage must govern very largely as to the method to be employed in saving the life of the woman, this being the main object in view. Where severe hemorrhages occur, say before the fourth or fifth month, I think it would be very unwise to wait for repeated hemorrhages; the uterus should be emptied of its contents as quickly as possible, and thus save the mother's life.

Inducing labor by rupturing the membranes: This has been suggested: rupture through the placenta, if necessary, in case of central implantation, draw off the waters and allow the uterus to contract; bring down the fetus, which will act as a plug in the mouth of the womb and in this way arrest the hemorrhage. I believe this

is a very good plan. I think after the sixth month that the best method is forcible dilatation with the hand. This can be practiced a little differently from the way Dr. Guntermann suggests. There is not much danger of laceration, because from the great loss of blood the patient is very much exhausted and the muscles are all relaxed, and therefore dilatation is not hard to accomplish. You can insert first one finger, then two, then three and afterward the entire hand; the hand can be slipped up alongside of the placenta into the uterus; the child can be brought down by the feet, which will act as a tampon; then you have arrested the hemorrhage. This is the plan employed in the three cases I have treated. Unfortunately, I was not able to save the lives of the children. Concerning statistics as to the life of the child—it is said that one-half of the children born after the seventh month live. It seems to me that the percentage of life is very large, as the hemorrhage in the majority of cases is frightful, and the child is in great danger of dying.

Dr. T. P. Satterwhite: There should be, if possible, an intelligent assistant always with the accoucheur. Of course we recognize where there is severe hemorrhage it should be checked as soon as possible, and there should always be a person to manipulate and help the uterus to contract while the accoucheur is delivering the child, which ought to be done, as has been stated, by first bringing down the foot; the child acts as a tampon and arrests the hemorrhage. I would give the woman 1-20th grain strychnia hypodermatically, and have the assistant with both hands keep constant pres-

sure upon the abdomen following the child down. Ergot should not be given under any circumstances until after delivery is accomplished. The danger of administering ergot lies in the fact that it causes contraction of the circular fibres of the uterus, often producing a very sad and fatal condition. I do not agree with Dr. Irwin as to the cause of hemorrhage. I think we all recognize at the latter part of utero-gestation that the cervix becomes completely obliterated, the outlet, like the fundus, being globe-shaped. As for Barnes' dilator, I had two at one time, but without use they became perfectly worthless. I agree with Dr. Irwin in his proposition that the fingers, properly applied, constitute the best means of dilating. By careful manipulation the fingers can be introduced into the uterus, the placenta, whether centrally attached or otherwise, can be detached and the child brought down. This, with pressure by an assistant from above, the hypodermatic injection of strychnia and the internal administration of quinine, I believe, will prove the best treatment for placenta prævia.

Dr. Louis Frank: It is the accepted teaching now that the cervix does not become obliterated during the latter period of utero-gestation. The authorities I have consulted recently, among them the last edition of Lusk and of Galabin, claim that the cervix does not give way at all; that the canal lies really obliquely, and, while it apparently disappears, yet it can be demonstrated by a careful examination that the neck does not become obliterated, that the obliteration does not occur until labor really sets in.

Dr. P. Guntermann: In answer to

the gentlemen who have spoken I would say that I have seen several cases of hemorrhage during the latter months of utero-gestation which were not due to placenta prævia, and one case which was due to placenta prævia, that I did not recognize at the time. I did not follow the method suggested by one of the speakers—to induce labor at once—I succeeded in relieving the alarming symptoms, the hemorrhage was checked and the patients went on to full term. I realize this will not always be the case, but it has happened in my practice several times where the hemorrhage was very profuse.

As to Dr. Bloom's question, whether the head ought to be delivered with forceps after turning—I did not state in my paper that we should *turn the child and deliver the head with forceps*; what I said was that we *should turn, or deliver with forceps*. It may, however, become necessary, after the body has been delivered, to extract the head with forceps, although such cases are very unusual.

Drs. Irwin and Satterwhite have simply confirmed the statements I made in my paper. We must remember that the neck of the womb is very vascular at the time of delivery, or during the last weeks of utero-gestation, and if we tear it, or make any extensive laceration, we are very apt to have hemorrhage, which increases the danger already existing.

Dr. J. M. Krim: I remember having seen a case with Dr. Leiber some time ago in which, after all hemorrhage had ceased and we could make proper traction, we found it impossible to deliver the head and forceps were used successfully, although the child was dead. I believe that forceps can be used to

advantage in cases where, after proper traction has been applied, you have been unable to accomplish delivery.

Dr. I. N. Bloom: In regard to the use of forceps in the character of cases under discussion, it seems to me with the left hand on the child's chest, by grasping the neck with the right hand, you have the best purchase that can possibly be obtained, and I really do not see why it should be necessary to apply the forceps, whether the child is alive or dead, it makes no difference.

Dr. J. W. Irwin: The question Dr. Bloom has raised is a very important one, and at first sight it looks like a difficult matter to apply forceps under the circumstances mentioned, but in case of a living child with a large head, pains feeble, and with a pelvis which is not very roomy, it becomes necessary to apply forceps oftener than one would imagine after breech presentations. I have used the forceps considerably in all forms of presentations, and I have at least a dozen times applied forceps in such cases as have been described, both in the cases of dead and living children, and I know that traction made in any other way sufficient to complete delivery might have broken the neck of the child. I have found the head wedged in the superior strait, and it was a difficult matter to disengage it and complete the delivery. By compressing the head, to some extent with forceps, in this way I was able to save the life of the child. Looking over some statistics for the last year, I find I have applied the forceps to the head twenty-seven times. In no case, however, did I apply forceps after a breech presentation, because it has not been necessary.

MOREHOUSE COUNTY (LA.) MEDICAL SOCIETY.

Benjamin H. Brodnax, M.D., presented a paper on

ACETANILID VS. QUININE TO ABORT
CHILLS AND FEVER; AND ACETANILID
AS A DUSTING POWDER
(See page 196.)

Discussion.

Dr. J. M. Anders: The paper which has just been read reports certain clinical facts of lively interest based upon personal observation. It seems strange at this time that anyone would assume to have obtained better results from the use of acetanilid in malarial intermittents than from the use of quinine. Unfortunately, Dr. Brodnax does not offer any experimental facts upon which to base an opinion of the mode of action of the acetanilid. The well-known antiseptic action of the drug is the only explanation that I can offer. I believe that Dr. Brodnax is a careful and reliable observer, and do not question the fact that cases of chills and fever were cured after even single doses of acetanilid. Although we have entered upon days of scientific therapeutics, I do not think that the days of rational empiricism have entirely passed away. We know that quinine cures chills and fever. Since that discovery nothing has been brought forward that will supplant quinine in the treatment of that disease. It is not impossible that such a remedy may be found; it may be that Dr. Brodnax has found it in acetanilid. I have met with cases of malarial intermittents in persons in whom there is an unpleasant idiosyncrasy against quinine. Now, in such

cases a better substitute for quinine than those we have at present would be welcome and of great advantage.

The question whether or not there are objections to the use of acetanilid might be asked. The statement has been made that acute dilatation of the heart sometimes occurs in intermittents. Now, it is known that acetanilid is a cardiac depressant, and in toxic doses has produced death by paralysis of the heart. While I do not consider this a bar to the use of acetanilid in the doses prescribed by Dr. Brodnax, I think that this influence makes it necessary to guard the heart during the time of its administration. If subsequent experience support these observations, the profession and members of this Society should give a vote of thanks to Dr. Brodnax for a new remedy for malaria, and one which promises to rank as a specific.

Dr. J. A. Cantrell: My experience with acetanilid in the treatment of disease has been in two hundred cases or more of skin eruption, especially intertrigo and eczema. I believe it to be the antiseptic that we are looking for in the place of iodoform. It does not have any irritating qualities that iodoform has, and, in fact, a great many cases of iodoform irritation have been cured by it. In very moist cases of skin disease it acts as a drying powder and also as an astringent. In other cases, like zoster, it acts well, dries up the eruption, and apparently it acts as a stop to the disease; at least, it seemed at the time as if acetanilid has produced this action.

Dr. G. G. Davis: Nobody would be more glad than myself for a satis-

factory substitute for the foul-smelling iodoform. Combinations have been brought forward of boric acid and other substances with iodoform. The mixture of boric acid I prefer to the pure iodoform. The boric acid breaks up the lumps which the iodoform contains and makes it a more manageable substance as a dusting powder. I have also used acetanilid by itself, but have been unable to persuade myself that it is the equal of iodoform for surgical purposes.

Dr. Edward Martin: I have used acetanilid in about a thousand cases of suppurating wounds, and my experience is, in these cases, that it is superior to iodoform. It is less toxic, for one thing. It is very common among surgeons to observe in slowly-healing wounds dressed daily with

iodoform, certain nervous symptoms, headache and so on, indicating iodoform poisoning. This is not seen in cases dressed with acetanilid; the wounds keep perfectly dry, there is no pus, and, of course, no odor, and the dressings keep as clean as with iodoform. I shall continue to use it in place of iodoform.

Dr. Davis: I think that the direction of surgical progress as regards the application of powdered antiseptic substances in recent wounds is on the decline, and I have no doubt that both the iodoform and the acetanilid will be eventually much less used than at present. Dr. Halsted, of Baltimore, makes an application of silver leaf take its place. Of course, drying powders will always be used in the treatment of suppurating wounds.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

March 26, 1895.

Dr. Wm. S. Gordon, President, in the chair.

The subject for the evening's discussion was a paper on

IMMUNITY FROM INFECTIOUS DISEASES, read by the Secretary. The following is an abstract:

The theories put forward to explain immunity are numerous. We shall consider—

1. The exhaustive theory. This supposes that the invading microbe takes from the system a substance necessary for its life and growth, exhausts it and it is never replaced; so that germs of a similar kind, seeking to attack the

body, can find no means of subsistence. Concerning this theory, Roosevelt, of New York, says: "It would be hard to believe that this could be the case if provision were only made for the growth and development of some *one species of germ*; but when we are called upon to believe that the majority of mankind come into the world with a separate and distinct 'substance' suited to the needs of the micro-organisms of small-pox, measles, yellow fever, etc., the imagination is staggered and the reason revolts against such a preposterous idea."

2. The antidote theory supposes that microbes, after entrance to the body,

produce a secretion (toxin) which is inimical to their own welfare. Upon it is based the action of antitoxin for diphtheria and tetanus. Reasoning by analogy is here brought into play. The excretions of man, if retained in the body, produce septic intoxication: so the presence of their excretions render the infecting bacteria harmless. This is plausible, but "we know of no organic compound which is not excreted or destroyed by the body within a short time after its introduction into the system." What goes on in the test-tube is not always an index of what occurs in the organism. Pepsin, for example, acts beautifully in the former, but how often have we been disappointed in it in the latter. In the test-tube the excretion products remain; in the system they are carted away as soon as formed.

3. The third theory may be termed that of the "survival of the fittest." In the contest between the invading bacteria and the body, the weak cells of the latter perish; the stronger survive, increase in power and transmit their strength to their progeny, thus following the law of inheritance. It may be called the congenital resistance of the tissues and cells.

It is conceded by most authorities that immunity to the infectious is due to the presence of substances formed by the metabolism of the cells. Investigations pursued in the past four or five years, notably by Vaughn, of Ann Arbor, and Aulde, of Philadelphia, have brought to light the fact that the bactericidal action of blood-serum is due to nuclein, a phosphorized proteid, formed chiefly by the multinuclear colorless corpuscles. It is non-poisonous and stimulates those organs whose function it is

to protect the body against disease. Aronson has, in all probability, recently obtained it from antitoxin. He, by the way, does not place faith in the antidotal action of this.

The production of a leucocytosis may be said to be synonymous with the production of immunity, if the white cells are healthy and are stimulated so as to secrete their nuclein. Leucocytoses exist in all infectious diseases where there is a local reaction, notably in croupous pneumonia. In typhoid fever there is none. Cold water will produce it, and thus we have an explanation of the good effects of cold baths. Massage has the same property.

Nuclein when injected does not act as a germicide directly, but stimulates the cells to renewed activity.

Attenuated cultures of microbes, or their toxins, when injected into a living body, have the power of stimulating the cells. The increased metabolism results in an increase of nuclein and along with it an increased power of resistance. We see then the action of antitoxin (sic), tuberculin, vaccine virus, erysipelatos cultures, etc. Antitoxin has never yet been obtained directly from cultures in the test-tube.

It is probable that one of the functions of the liver is the extinction of bacteria and their products, as noted by Ewing (*N. Y. Med. Jour.*, March 2, 1895). Nuclein stimulated this organ and others that have to do with the formation of phagocytosis.

Dr. Hugh M. Taylor was surprised by one point brought out, and that was that the ptomaines did not kill the germs. He quoted Morris, who said that in some cases of appendicitis the ptomaines are so virulent as to destroy

the microbes causing the disease, recovery taking place.

The most plausible theory, to my mind, is the "survival of the fittest."

The President: When nuclein is given by the stomach the proteid portion may be acted upon, leaving the phosphorus to be absorbed alone. The good effect of the nuclein may be due to the phosphorus, which is a powerful stimulant, as seen in the administration of hypophosphites. It is an aphrodisiac and also excites the mental functions. He believes that Brown-Sequard's testicular extract and the organic extracts owe their good results to phosphorus. Resorption of the seminal fluid acts as a powerful stimulus, and it is rich in the same element. It is claimed that the adrenals, thymus and kindred glands are engaged in eliminating poisons. In leucorythæmia we have an increased number of colorless corpuscles, and yet death is almost certain.

Dr. J. W. Henson: It occurs to me that there are certain arguments in favor of the "survival of the fittest" and against the killing of the germs by toxins:

1. Some persons exposed to certain contagious diseases never take them under any circumstances. The toxins do not remain in the system and the immunity conferred by them, if at all, cannot be permanent, so there would be no reason why these diseases should not be contracted again.

2. After certain infectious diseases are contracted, they are not taken again, which is an argument in favor of the destruction of the weak cells and survival of the strongest.

Dr. Landon B. Edwards does not think that we have arrived at the point

to say to just what immunity is due. The theory of the "survival of the fittest" does not reach a number of germ diseases; small-pox, for instance, is not protective against other diseases. We are premature in taking a decided stand. Regarding isopathy, the doctor said we are on the border land of grand discoveries. In myxœdema and cretinism thyroid extract is working wonders.

The Secretary, in closing the discussion, said that what goes on in the test-tube is not necessarily indicative of what occurs in the living body. That the destruction of germs by their toxins occurs in the tube, is not denied; neither is it denied that alcohol produced in the tube by yeast cells destroys the latter. In the body we have the circulation, covering a large area and always in motion, and elimination is occurring incessantly. The conditions governing the two are dissimilar. The fact that the body immune to one disease is not immune so far as another is concerned, is not antagonistic to the "survival of the fittest." This is an educational process, and we know that perfect knowledge requires teaching of all branches and an absolute understanding of them.

We limit the term immunity to infectious diseases. Leucocythæmia, which shows a diminution of the colored blood corpuscles, rather than an increase of the colorless, does not come under this head. It is not the actual increase of these so much as their healthy condition, their power to secrete nuclein, that determine immunity.

REPORTS OF CASES.

Dr. Virginus W. Harrison: I wish

to report a case in order to exhibit to you a very pretty specimen of hydrosalpinx. The case is also interesting because of the variety of morbid conditions presenting.

On March 19, 1895, Mrs. H., aged 44, was sent by me to the Virginia Hospital to be prepared for a laparotomy for the removal of some growths. The next day I operated, ably assisted by Dr. Hugh M. Taylor, Dr. Geo. Ross administering chloroform. The first morbid condition seen was a pedunculated uterine fibroid weighing between two and a half and three pounds. It was attached to the upper portion of the posterior surface of the womb by a pedicle about two inches long and as broad as my two fingers. The pedicle was transfixed with a double ligature of silk near the uterus, the tumor tied off and the stump cauterized with a Paquelin. The next condition engaging our at-

tention was this large and very pretty specimen of hydrosalpinx of the right side, which I have here this evening. Its measurements soon after extirpation were thirteen inches in circumference, six inches in length and five in depth.

The adhesions to the pelvis and bowels were numerous, rendering its removal without rupturing the delicate covering difficult. It was successfully done, however, the tube tied and the stump cauterized. The ovaries were found in a degenerated state and resolved. In addition to the hydrosalpinx, an intra-ligamentous cyst, about half its size, was found on the right side. Unfortunately, in the attempt to remove it, it was ruptured.

The patient is doing well, with every indication of recovery, this being about the middle of the seventh day since the operation was performed.

MARK W. PEYSER, M.D., Sec'y.

Selected Papers.

OPIUM IN THE DISEASES OF CHILDREN.

By Floyd M. Crandall, M.D., Adjunct Professor of Diseases of Children, New York Clinic.

It is the common belief that, although opium is one of the most useful of drugs in the diseases of adults, it is dangerous and not adapted to the needs of sick children. That it is an unsafe drug when administered to infants without discrimination, there can be no doubt. When given in proper doses and with knowledge of its therapeutic properties it is safe and satisfactory. It should be remembered

that it—1, stimulates the heart; 2, weakens the respiration by acting upon the respiratory center of the medulla; 3, blunts the sensory nerves; 4, decreases the secretion of the digestive tract, the bronchi and all mucous surfaces, the liver and various glands; 5, increases, often, the secretion of the skin and kidneys; 6, decreases the action of the unstripped muscular fibre, thus checking peristalsis and

spasm of the intestine, spasm of ducts and action of the bronchi and bladder. A drug acting in such varied ways cannot be used thoughtlessly without untoward results.

In diarrhœa much opposition to opium has arisen during recent years, due chiefly to misapprehension as to its proper applications. While its improper use may do much harm, it is an agent of the greatest value, and should not be abandoned. It is contra-indicated—1, in the first stages of acute diarrhœa before the intestinal canal has been freed from decomposing matter; 2, when the passages are infrequent and of bad odor; 3, when there is a high temperature or cerebral symptoms are present; 4, when its use is followed by elevation of temperature or the passages become more offensive. It is indicated—1, when the passages are frequent, with pain; 2, when the passages are large and watery; 3, in dysenteric diarrhœa, together with castor oil or a saline; 4, in late stages, with small, frequent, nagging passages; 5, when the passages consist largely of undigested food, and the bowels act as soon as food is taken into the stomach.

The dose should be as small as possible, sufficient being given to materially relieve pain and check peristalsis. It should not be added to the ordinary diarrhœa mixture, to be repeated at short intervals. It should be given alone and at intervals sufficient to allow the effect of one dose to subside before another is given. This interval will rarely be less than four hours.

Opium is frequently employed to allay cough. The chief office of ordinary cough syrup seems to be to destroy the appetite, disturb the diges-

tion and make the child peevish. For an expectorant cough it should be given sparingly—the more the secretion the less the opium. In non-expectorant coughs it may be used more freely. In the dry, painful cough of pleurisy, it may be given more freely than in almost any other condition. In the early, dry stage of bronchitis it may be given in small doses as well as for the harassing cough of the latter stages, if the respiration is free and the circulation is good. It should never be given in doses sufficient to materially retard expectoration. A full dose of opium, combined with ipecac, is still one of the most efficient means of relieving spasmodic croup.

For the relief of pain, no drug equals opium. When actual pain is present, it may be given to children with perfect propriety. Condemnation cannot be too strong, however, against its use for minor ills and aches. It should never be used for sleeplessness, unless due to actual pain. It is unwise to allow a mother to suppose that she can use paregoric. If it is indicated, let it be prescribed or left diluted and ready for use. A few tablets triturate may be carried, each representing ten minims of paregoric. These can be left with the assurance that no more will be given than is intended, and the mother will be in ignorance as to their exact nature. When a child is cross and irritable, the temptation to the mother to repeat an opiate is very great, and should be guarded against as far as possible. The number of babies who have been forced into the opium habit is appallingly large. It results largely from the use of soothing syrup and paregoric. An abnormally quiet child during the

first ten days is an object of suspicion. Opium is frequently given by monthly nurses to keep the baby quiet and assure rest for herself.

The dose of opium varies greatly, and no positive rules can be given. It is comparatively small, especially under eight months. As a general rule, one minim of paregoric (equivalent to two drops) may be given for each month of the baby's age. At one year three-fourths of a minim of the deodorized tincture is a full dose, or three-fourths of a grain of Dover's powder. Morphia is rarely indicated at this age. The dose should not exceed 1-120 of a grain when given hypodermically. The initial dose of opium should be small, and its effect should be noted before it is repeated.—*Gaillard's Med. Jour.*

DR. WINSLOW'S TREATMENT OF HOMICIDAL MANIA.—Apropos of a number of cases of apparently causeless stabbing in the streets of London, Dr. Forbes Winslow, in a letter to one of the newspapers, made the following recommendation:

"In the case of a person who kills another in the street without motive, a certain congestion of the brain and rush of blood take place. If one were to strike him on the nose, a blow which would cause the loss of blood, it would afford instant relief, and he would no longer be actuated by the impulse to murder. These ordinary homicidal lunatics, who are sane on the surface, are the most difficult to deal with. You may talk to them for four hours and they will appear perfectly rational. Yet they will suddenly go out and attempt to kill the first person they meet. The typical homicidal lunatic, unlike

the man who is afflicted with a desire to commit suicide, is incurable." He adds that the number of homicidal lunatics at large in London is greater than usual, and that he is frequently visited by madmen who are unaccompanied, some of whom want to kill him, and others ask to be prevented from killing others.—*Medical Record.*

THE CHEMISTRY OF CLEANLINESS.—*Nature* publishes an article that proves the virtues of cleanliness to be more than æsthetic. The sudoriferous glands perform the important function of throwing off the moisture produced during the combustion of waste tissue by the oxygen of the blood, and secrete 23 ozs. of perspiration in 24 hours. The conversion of perspiration into vapor renders latent a great amount of heat and keeps the body cool. Water at 120° is almost unbearable; but heat in an oven to the extent of 325° may be borne for a time. In the 23 ozs. of perspiration secreted daily there is about one ounce of animal matter. This is left behind on evaporation. Sebaceous glands also secrete oily and resinous substances. This, mixing with the solid matter and dirt, forms a compound which tends to clog the pores of the skin. The removal of this compound is largely the source of the feeling of refreshment and *bien aise* following a vigorous morning bath.—*Ibid.*

THE BOARD OF MEDICAL EXAMINERS will meet in Goldsboro on Monday, May 13th, for the examination of applicants for license to practice medicine in the State of North Carolina.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR

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Editorial.

CONTAGION AND THE COMMUNION CUP.

For some months a discussion has been going the rounds of the medical, religious and secular papers in regard to the danger of contagion from the use of a common communion cup by congregations of people. Not only have writers been discussing the subject as individuals, but it has been brought up in the meetings of medical societies and in the conventions of religious bodies. In some of these resolutions have been adopted condemning the use of the common cup, and in the majority of bodies where the resolution has been introduced, the vote has been well divided.

We have refrained from expressing

our opinion on this subject heretofore, and these remarks, which will be very brief, are brought out by the receipt of the following letter:

"542, BROAD ST., NEWARK, N. J

"DR. ROBERT D. JEWETT:

"*Dear Sir* :—The subject of the individual communion cup, which is being so generally discussed in our city and all over the country, greatly interests me. The lack of cleanliness in the common cup and the danger of contagion from its use, are recognized by many of our best medical authorities. Desiring the opinion of prominent physicians, clergymen and laymen upon the subject, I take the liberty of asking if you will favor me with your views? If you do so may I quote from your opinion?

"Yours, respectfully,
"EDWIN J. HOWE, M.D."

That it is possible to convey disease from one person to another through the medium of the communion cup, all believers in the germ theory of disease must acknowledge, for, because the cup is a factor in the performance of a religious rite, it is not more likely to destroy the activity of a germ that may adhere to it than could any other fomes. A violation of the laws of Nature or God, will surely bring punishment to the offender, though he be ignorant of the fact that he is violating those laws, or even though his purpose be to serve God or to advance the welfare of his fellow-men.

On the other hand, while this possibility must be acknowledged, we believe that it cannot be definitely proven that any single case of disease can be certainly traced to contagion through the communion cup. The customs and traditions of a people are dear to them and should not be thoughtlessly destroyed. We are heartily in favor of all legitimate sanitary reform, but we

look upon this movement as an extreme measure on the part of misguided enthusiasts, who, in their endeavor to discover some new idea with which to startle the world and cause a sensation, have complacently swallowed the camel and are now straining at the gnat. Of all the methods of contracting disease that have been sprung upon an all-credulous people, we believe this is about the most insignificant. We cannot help likening those who are using so much energy to wipe out this insignificant source of infection to the doctor who would spend his time in sewing up small wounds on a patient's legs while he is bleeding to death from a wound of the jugular. Were these gentlemen to so direct their efforts that the ventilation and heating of one or two improperly constructed churches were made perfect, they would be the means of saving more lives than if they persuaded all the churches in the country to adopt the individual communion cup.

Abstracts.

OBSERVATIONS ON THE TREATMENT OF FIBROIDS OF THE UTERUS.—Dr. O. S. Phelps, of New York (*American Medico-Surg. Bull.*), reports an unusually complicated case of uterine fibroid in a girl 17 years of age, who came under his care in July, 1894. She was sent from the West to New York by the family physician to have a hysterectomy performed, and came directly to his sanitarium. The tumor was 8 to 10 centimeters in diameter, and crowded the uterus well over to the

left side. The uterine cavity measured 5 inches and the organ, with its appendages, was surrounded and bound down by an inflammatory exudate. The bladder was impinged upon so that it could not hold more than one or two ounces of urine, causing the patient great agony to evacuate it. The whole mass, including tumor, exudate, uterus and appendages, filled the pelvis and rose well up to the umbilicus. The patient was much emaciated, weighed 60 pounds (normal

weight 125 pounds), could not stand or talk, nor could she turn in bed without great pain. Temperature 100° to 130° . Dr. A. H. Goelet was called in consultation and confirmed the diagnosis; he also agreed that no operation could be considered at that time, but thought ligation of the uterine arteries might be resorted to later. The treatment adopted was the high tension faradic current, 15 minutes, thrice daily, vagino-sacral and abdominal. At each seance the temperature was reduced $\frac{1}{2}$ to 1 degree, lasting one to two hours. A system of feeding was adopted under the guidance of microscopical observations of the blood and secretion to determine the correct choice of foods. In two months the temperature remained normal and the weight had increased 30 pounds. Galvanism was then begun, with anode to tumor per vaginam, by means of a special clay electrode with cathode closely adapted to tumor over abdomen; 20 to 30 milliamperes of current, 7 to 10 minutes, every five days. On January 15 tumor was reduced to a mere nodule about the size of a small walnut, exudation gone, uterine cavity measured $2\frac{3}{4}$ inches. Patient's weight was then 125 pounds.

Conclusions.—The writer ascribes the favorable results in this case—

1. To a systematic plan for restoring the nutrition, under such favorable conditions as are afforded by a sanitarium.
2. To the persistent use of the high tension faradic current to allay pain, reduce inflammation and induce absorption.
3. To the galvanic current, so applied as to concentrate its action upon the fibroid growth.

GRIPPE.—Dr. Andrew H. Smith, in the *N. Y. Medical Record*, in discussing the treatment of grippe, says:

"In regard to treatment, the use of some one of the coal-tar antipyretics during the first stage, to relieve the pain, still seems to hold its place. I have tried to guard against the depressing effects of these agents and to check their tendency to produce excessive sweating; the first, by employing only moderate doses and by adding a little camphor; the second, by the further addition of atropia. A convenient pill is composed of three and a half grains of phenacetin, one-half grain of camphor and 1-300 of a grain of atropia sulphate. Two of these pills may be given at the outset, followed by one every three hours until the temperature falls and the pain is relieved.

"For the subsequent annoying cough the temptation to prescribe opiates is very great. But they add to the dryness of the tracheal and laryngeal surfaces, and if continued, seem to retard rather than to promote recovery. It is better to employ them only when demanded to procure necessary rest. For this purpose Tully's powder does extremely well. The bromides, by allaying reflex irritability, are very useful. The ammonium bromide, being largely excreted through the lungs, exerts a more decided local influence, and it is at the same time less depressing than the other forms. Yerba santa has done me good service, especially in combination with maltine, for which hot milk is an excellent vehicle.

"The mucous surface of the larynx and trachea may be treated locally with advantage by inhalation of warm

vapor containing a small amount of carbolic acid. The vapor relieves the dryness of the membrane, while the acid exerts its peculiar anæsthetic effect. Conium also is useful, employed in this way. Maw's inhaler is the simplest and most convenient apparatus for this form of inhalation. A spray of carbolic acid in aboline oil will sometimes produce a more lasting effect than a preparation with water as a menstruum."—*Brooklyn Med. Jour.*

BICYCLING FOR WOMEN.—Dickinson (*Amer. Jour. of Obst.*, January 1895) concludes that "under proper conditions of costume and posture, with care that the exercise be gradually increased and properly graded for the individual case, and where there is no acute inflammation to contraindicate it, bicycling will probably show itself capable of large results as an agent in curing pelvic disorders, since it is one of the few exercises which attract women.

"In view of women's disabilities and the disadvantages under which she has suffered in attempts to obtain interesting and beneficial muscular exercise, it seems hardly too much to say that the promise from the bicycle is far-reaching. Through it and the habits it will engender, we look for better dress, freer dress, shorter dress in bad weather; for better exercise, for out-of-door activity, for steadier nerves, stronger muscles, painless periods, easy labors."—*Ibid.*

NEW OBSERVATIONS IN GONORRHOEA.—At the recent meeting of the German Dermatological Association, considerable time was devoted to the discussion of the etiology of gonorrhœa, and

among the interesting points brought out, an observation by Wertheim is deserving of especial attention. This careful investigator has found that gonococci obtained from the secretions of chronic gonorrhœa can be cultivated so as to acquire a high degree of virulence, and when inoculated in the urethra of the patient from whom they were derived, will give rise to an intense gonorrhœal inflammation. It has been quite frequently observed that patients suffering from latent gonorrhœa at the time of marriage have infected their wives and at a later period acquired from them in return an acute urethral inflammation. Wertheim's experiments are, therefore, of importance in affording a rational and scientific explanation of this clinical observation.—*Int. Jour. Surg.*

ALBUMIN IN URINE.—Dr. C. Fouchlos (*Progrès Medical*) recommends two new tests for albumin in urine, for which he claims utmost delicacy and absence of any possible fallacy:

1. Add to the suspected urine a few drops of a 1 per cent. solution of corrosive sublimate; in case of turbidity, add some drops of acetic acid. If the turbidity persists, it is due to the presence of albumin.

2. Take 100 c.c. of a 10 per cent. solution of sulpho-cyanide of potassium, and mix with it 20 c.c. of acetic acid. Add a few drops of this mixture to the urine. If albumin is present in small quantities, an immediate turbidity will ensue; if in larger quantities, a heavy white precipitate will appear.—*Med. and Surg. Reporter.*

ANTIPYRIN AS A HÆMOSTATIC.—Dr. Roswell Park, in the *Medical News*, recommends a 5 per cent. solution of

antipyrin in sterilized water as an efficient hæmostatic. He uses it as a spray in the nasal cavity, for epistaxis, upon the peritoneum, upon the surface of the brain or wherever else there is oozing. Of course it has not power to contract vessels of any size that spurt, but will almost instantly check oozing. He has found it also to be unirritating.
—*Brooklyn Med. Jour.*

THE CLINICAL SIGNIFICANCE OF PERIGASTRIC ADHESIONS. — According to the Paris correspondent of the *Lancet*, Professor Terrier, about a year ago, reported the case of a woman affected with intense pain in the epigastrium, due to the presence of adhesions binding the stomach to the neighboring organs. Laparotomy was performed, and the most careful examination failed to bring to light any other cause for the trouble than the existence of these adhesions, the rupture of which brought about a lasting recovery. Since then M. Terrier has had under his care a woman, aged 50, in whom symptoms referable to the stomach had appeared ten years ago. These symptoms were dyspepsia, vomiting and great pain. After a respite of two years the same trouble reappeared, accompanied with hæmatemesis. A second respite, lasting three years, was followed by a third attack, and a fourth attack occurring in October, in 1893, brought her in an emaciated state under the notice of M. Terrier. The epigastric region was doughy to the touch, and the stomach was dilated. Laparotomy brought to light a slight induration at the cardiac orifice and numerous adhesions between the stomach, the liver and the omentum. The adhesions were divi-

ded and the woman has remained well ever since. M. Championnière had under treatment, three years ago, a man who had suffered for twelve years from epigastric pains. The most contradictory diagnosis had been advanced to account for his trouble. Stoicesco, of Budapest, was the only surgeon who had suggested the existence of perigastric adhesions, the idea being based upon the fact that the seizures occurred one hour after meals, and reached a climax two hours later. Laparotomy was had recourse to by M. Championnière, and dense ligneous adhesions were discovered binding together the stomach, liver and omentum. So hard were they that much difficulty was experienced in sectioning them. The only morbid antecedent that could in this case possibly account for the presence of the bands was an almost forgotten abscess of the liver which had emptied itself into the gut.
—*Med. Record.*

BACILLI TUBERCULOSIS IN CIGARS.— Dr. Kerez (*Centralblatt für Bacteriologie*) reports the result of experiments which he has been making for the purpose of determining the possibility of the communication of tuberculosis through the medium of cigars. It is a well-known fact that cigar-makers are in the habit of making the leaves adhere to the cigars by moistening them with saliva from their own mouths. The force of habit leads them to continue this practice, although in recent times manufacturers provide their workmen with materials for the purpose indicated. Dr. Kerez made cigars by moistening the leaves with saliva known to contain tubercle bacilli. The cigars were then dried and packed

away in boxes in the usual manner. It was found afterward, when the cigars were unrolled and the leaves washed in water, that the infusion thus obtained, having been injected into Guinea-pigs produced tuberculosis, clearly showing that cigars may thus be the means of communicating tubercle bacilli and giving rise to pulmonary disease.—*La Medecine Moderne*.

GASTROSTOMY FOR FOREIGN BODIES.—At a recent meeting of the Leeds and West Riding Medico-Chirurgical Society, Mr. Mayo Robson read an interesting paper upon a remarkable case of foreign bodies removed from the stomach of a child by gastrostomy. The patient was ten years of age and had been admitted into the hospital for gastric symptoms which were not of a very definite nature. For eight months the symptoms had persisted without yielding to any treatment. However, while under observation in the hospital, the patient vomited a nail. It was then decided to open the stomach, and as a result of the operation the following curious collection of heterogeneous objects were removed: 47 cast-iron garden nails, $1\frac{5}{8}$ inches long; 93 brass and tin tacks, $\frac{1}{2}$ inch to 1 inch long; 12 large nails, some brass-headed; 3 collar studs, 1 safety-pin, 1 sewing-needle. All these, of course, had during the previous eight months been swallowed by the child. The operation healed by first intention, the patient making a complete recovery.—*Boston Med. and Surg. Jour.*

PERSISTENCE OF THE DIPHTHERIA BACILLUS IN THE THROAT FOR SEVEN AND A HALF MONTHS.—Schäfer, in the *Brit. Med. Jour.* of January 12th, reports the case of a boy who had an

attack of "tonsillitis" early in last May, which was recognized to be diphtheritic on the occurrence of characteristic paralyses, two months later. Seven and a half months later two other boys in the same school, one of whom slept in the same dormitory, and the other of whom shared a desk with the May case, came down with diphtheria. A sample of mucus from the throat of the May case was sent for examination along with the others, and was found to contain numerous colonies of typical Löffler bacilli, which, on inoculation into animals, proved to be active. This is the first instance reported of the persistence of virulent bacilli for so long a period.—*Ibid.*

INDICANURIA.—Dr. Gehlig gives the following conclusions, based upon a considerable number of observations upon children, both sick and well:

1. Nurslings in good health or children fed upon sterilized milk, and not the subjects of digestive troubles, sometimes present a trace of indican in the urine.

2. If digestive disturbances occur almost always some indican is found, its quantity varying with the gravity of the affection. In chronic catarrh of the intestine, cholera and typhoid fever, it is particularly marked.

3. In older children without digestive trouble, the urine normally contains indican. If the diet includes a high proportion of nitrogenous food (eggs, meat), indican becomes more abundant.

4. There can be no relation between tuberculosis and a more or less marked indicanuria.

Cima has published the results of

examinations in 68 cases. Most of these children were fed simply on bread and milk, some on bouillon, vegetables and eggs, and others on mother's or cow's milk.

1. Cases of clinically declared tuberculosis of abdominal or thoracic organs—10 cases. Almost all had some irregularity of digestion and the stools were mostly liquid or semi-fluid. In 99 analyses 69, or 69.69 per cent., gave positive reactions, while medium or very marked reactions were given in nearly half, or 45.5 per cent. In these same cases very marked reactions were obtained after some days of feeding upon a diet richer in albuminoids, or during constipation. On the other hand, the reaction was slight or feeble when the children were put upon milk or had liquid or semi-fluid stools.

2. Cases suspected of tuberculosis, with adenopathy, chronic catarrh of intestines, or intermittent catarrh of bronchi—23 cases. In 73 analyses, 75.34 per cent. gave positive reactions, or 46.57 per cent. of medium or marked reactions.

3. Cases of divers acute and chronic diseases—35 cases. In 88 examinations 38 were without reaction, while 30 per cent. of medium or marked reaction were given for the most part by children over 2 years of age nourished on a mixed diet.

The conclusion from these results is that the indican reaction in the urine is more positively connected with anomalies of digestion, especially in mixed feeding, than with the principal malady. Consequently indican has no other diagnostic importance than of indicating the degree of decomposition of albuminoid substances in the intestines.—*American Jour. of the Med. Sci.*

TUMORS OF THE PLACENTA. — Dr. Edward Alin observed an interesting case of this nature in a III-para, 29 years of age, the placenta weighing 21 ounces. In the marginal portion there was a solid tumor as large as a hen's egg, and another the size of a walnut, in the centre of the placenta. (*University Medical Magazine*.) Both tumors were made up of numerous smaller ones, varying in size from the head of a pin to a hazel-nut. The tumors could be easily distinguished from the rest of the placental tissue by their compact appearance. There were no other tumors, infarcts, or hemorrhage, or any condition which would indicate an impediment in circulation, and no inflammatory areas or signs of degeneration. The tumors were found to consist of capillary vessels, surrounded by scanty connective tissue with few cells. There was no trace of a sarcomatous structure. The endothelium of the vessels consisted of a single layer, with well-defined cells, coloring easily. The author regarded the tumors as due to hypertrophy of the chorionic villi with abundant vascularization.—*Medical Record*.

PHOTOGRAPHING THE WOMB. — A Swiss physician has described a method of dilating the uterus by means of tents, so that by the use of a mirror a perfect view may be obtained of the interior of the organ. Not content with this, however, he is unselfish enough to desire to obtain photographs of the uterine interior in various diseases of the organ. The future of woman is sad, indeed, if now her womb must not only be felt of, sounded and measured, but photographed as well.—*N. Y. Polyclinic*,

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From March 21 to April 3, 1895:

The following officers are detailed to represent the Medical Department of the Army as delegates at the annual meeting of the Association of Military Surgeons of the United States, to be held in Buffalo, New York, May 21 to 23, 1895: Lieut. Col. Dallas Bache, Deputy Surgeon General; Major Philip F. Harvey, Surgeon; Captain Daniel M. Appel, Assistant Surgeon. They will proceed from their respective stations in time to reach Buffalo on May 21, 1895, and upon adjournment of the meeting will return to their proper stations.

The following named officers are detailed to represent the Medical Department of the Army as delegates at the annual meeting of the American Medical Association, to be held at Baltimore, Md., May 7 to 10, 1895: Lieut. Col. Wm. H. Forwood, Deputy Surgeon General; Major Charles K. Winne, Surgeon; Major Walter Reed, Surgeon, and Captain Harry O. Perley, Assistant Surgeon. They will proceed from their respective stations in time to reach Baltimore on May 7, and upon the adjournment of the meeting will return to their proper stations.

Captain Rudolph G. Ebert, Assistant Surgeon; relieved from duty at Fort Huachuca, Arizona, and ordered to Fort Columbus, New York, for duty at that post.

Captain Paul Shillock, Assistant Surgeon, relieved from duty at Fort Wingate, New Mexico, and ordered to Madison Barracks, New York, for duty at that post, to relieve Captain Robt. B. Benham, Assistant Surgeon. Capt. Benham, on being relieved by Capt. Shillock, will report in person for duty at Fort Wingate, New Mexico.

Stiles, Henry R.—The extension of leave of absence on surgeon's certificate of disability, granted First Lieut. Henry R. Stiles, Assistant Surgeon, is

still further extended two months on surgeon's certificate of disability.

Poindexter, Jefferson D.—Leave of absence for one month is granted Capt. Jefferson D. Poindexter, Assistant Surgeon.

Gibson, Joseph R.—The leave of absence, on account of sickness, granted Lieut. Col. Joseph R. Gibson, Deputy Surgeon General, is still further extended six months on surgeon's certificate of disability.

Shannon, Wm. C.—Leave of absence for three months, to take effect on the expiration of his present sick leave, with permission to leave the United States during May and June, 1895, is granted Capt. William C. Shannon, Assistant Surgeon.

Frick, Euclid B.—Capt. Euclid B. Frick, Assistant Surgeon, will be relieved from duty at Fort Townsend, Washington, to take effect upon the expiration of his present leave of absence, and will then report for duty at Presidio, of San Francisco, California, relieving Capt. Charles Willcox, Assistant Surgeon. Captain Willcox, upon being thus relieved, will report for duty at the United States Military Academy, West Point, New York, relieving First Lieutenant Frederick P. Reynolds, Assistant Surgeon. Lieut. Reynolds, on being thus relieved, will report for duty at Fort Sam Houston, Texas.

THE NAVY.

Three weeks ending April 13, 1895: *Pickett, G. McC.*, P. A. Surgeon, detached from U. S. S. "Newark," and granted three months leave.

Dunbar, A. W., Assistant Surgeon, detached from U. S. R. S. "Vermont," and ordered to the U. S. S. "Newark."

LaMotte, Henry, Assistant Surgeon, detached from U. S. S. "Newark," ordered home and two months leave.

Bagg, C. P., Assistant Surgeon, detached from U. S. N. Hospital, Mare Island, Cal., and ordered to the U. S. S. "Monterey."

Baldwin, L. B., Surgeon, detached from Pensacola Navy Yard and ordered to the U. S. S. "Montgomery."

Hope, J. S., Assistant Surgeon, ordered to the U. S. S. "Montgomery."

Wells, Howard, Surgeon, detached from the U. S. S. "Montgomery" and granted three months leave.

MARINE HOSPITAL SERVICE.

Official list of the changes of stations and duties of medical officers of the United States Marine Hospital Service, for the fifteen days ending March 30, 1895:

Vaughan, G. T., P. A. Surgeon, to

proceed to Philadelphia, Pa., and assume command of service March 28th, 1895.

Gardner, C. H., Assistant Surgeon, granted leave of absence for fifteen days, March 22, 1895.

Cumming, H. D., Assistant Surgeon, to rejoin station at New York, N. Y., March 16, 1895.

Promotion.

Eagen, J. M., commissioned as P. A. Surgeon, March 26, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Dr. W. L. Hudson has removed from Hawley's Store to Dunn, N. C., where he will continue the practice of medicine.

We regret to learn that the *American Lancet*, one of our most highly appreciated exchanges, has been discontinued.

Mr. Geo. S. Davis, the medical publisher, of Detroit, Michigan, will begin soon the publication of a new medical monthly, to be called *Medicine*.

Dr. A. A. Kent, the Leader of Debate at the approaching meeting of the Society, has selected for his subject The Abuse of Alcoholic Stimulants in Practice.

The *Buffalo Medical and Surgical Journal* will soon reach the ripe age of fifty years. The able editor, Dr. Wm. Warren Potter, will signalize its semi-

centennial anniversary by increasing its reading pages from sixty-four to eighty, and by making other improvements that will contribute to its efficiency. This journal is already one of the very best medical monthlies in the country, and we extend our sincerest congratulations to the Editor on the great success the past has brought, and wish him still more in the future.

Dr. Welch, the bacteriologist for Johns Hopkins Hospital, has demonstrated that germs will not grow in the immediate vicinity of silver. A sterilized silver wire was introduced into a culture, and, while the colonies grew as usual elsewhere, immediately about the wire was free from them. Drs. Halsted and Kelly are making use of this discovery by using silver foil in the dressing of aseptic surgical wounds. The foil is placed immediately in contact with the closed incision in sheets

about four inches square, and then the other aseptic dressings are applied.

The *Buffalo Druggist* is a new pharmaceutical monthly, published in Buffalo, N. Y.. The initial number has reached our table and promises well for the future.

When you write to any of our advertisers, Doctor, it would be but very little trouble to say you saw the advertisement in the NORTH CAROLINA MEDICAL JOURNAL, but it would help the JOURNAL.

Two members are to be elected at the approaching meeting of the Society to fill the vacancies on the State Board of Health caused by the expiration of the terms of office of Dr. W. H. Harrell and Dr. John Whitehead.

Regular attendants upon the Society meetings will remember that for several years Mr. Garvens, of the firm of Bartlett, Garvens & Co., Richmond, Va., has been on hand with a beautiful line of instruments. We are pleased to learn that he will be with us again this year.

The secular papers are circulating the report that Dr. Charles Waldstein has discovered that pilocarpin in minute doses is curative in consumption and cancer, through its stimulative action on the lymphatics. The papers must have news, even if it does come high. In telling what pilocarpin is, the *N. Y. Herald* gives the dose at *three grains*, hypodermatically.

The revolt in Cuba affects this country in more ways than one. Yellow fever is raging at Havana, particularly among the unacclimated Spanish troops.

This means that the quarantine authorities of the Gulf and South Atlantic States will have to exercise more than ordinary care if they would keep out the disease from our shores. The probability of secret communication between the Island and Florida makes the danger more threatening.

While in Philadelphia, recently, we had the pleasure of meeting Mr. E. A. Yarnall, the leading surgical instrument manufacturer of that city. He informed us of his intention to be present at the Goldsboro meeting with a full assortment of instruments. All will welcome him.

All those who intend to read papers at the meeting of the Society in Goldsboro, May 14th to 16th, and who have not sent in the titles of their essays to the Secretary of the Society at Wilmington, have only a few days now in which to do so, if they secure a place on the program.

We learn that the plans and specifications for the Cape Fear Quarantine Station have been completed and accepted, and that bids for doing the work have been asked for. This means that the work will soon be commenced, and as it will require but a short time to complete the station, we hope to see it in operation by the middle of the summer. The Government appropriated \$25,000 for the establishment of the Station and \$2,000 a year for its maintenance.

WHAT ARE WE COMING TO?

(Public School, first grade, A. D., 1905.)

Teacher (to applicant for admission).—"Johnnie, have you got a cer-

tificate of vaccination for small-pox?"

"Yes, sir."

"Have you been inoculated for croup?"

"Yes, sir."

"Been treated with diphtheria-serum?"

"Yes, sir."

"Had your arm scratched with cholera bacilli?"

"Yes, sir?"

"Have you a written guarantee that

you are proof against whooping-cough, measles, mumps, scarlet fever and old age?"

"Yes, sir."

"Have you your own private drinking-cup?"

"Yes, sir?"

"Do you promise not to exchange sponges with the boy next to you and never use any but your own pencil?"

"Yes, sir."

—*Times and Register.*

Reading Notices.

Celerina is indicated in cases of nervous sick headache, caused from over-work or study.

Dysmenorrhœa with Habitual Constipation:

Stearns' Cascara Aromatic, — 1 fl. oz
Simple Elixir, — — — — — 2 fl. oz
Syrup of Sarsaparilla Compound 1 fl. oz
Mix. Sig: Teaspoonful three times a day before meals.

The Rio Chemical Company, of St. Louis, if it had never done more than present to the profession its valuable S. H. Kennedy's Extract of *Pinus Canadensis*, would have placed the profession under a lasting obligation to it. There is no more healthful, stimulating and generally beneficial application that can be made to a diseased mucous membrane than this.—*Medical Mirror.*

Experience of a Medical Journalist with Nervous Exhaustion.—I take this occasion to write you in grateful recognition of what your Petroleum Emulsion has done for me. Noting your advertisement in the *Medical Century*, I called our Editor's attention to it as being possibly beneficial in my own case of nervous exhaustion and general tissue debility, Dr. Fisher indorsed the Emulsion so heartily that I have

since been using it as a daily diet, and find the effect most invigorating and soothing. Yours, very truly,
(*Signature*) R. E. YOUNG, Mgr.

In the after-treatment of a case where an "Operation for the Relief of an Impermeable Occlusion of the Œsophagus of Five Years Standing" had been performed, which operation was reported at length in the *N. Y. Medical Journal* of March 23d, 1895, Dr. Augustus C. Bernays, A.M., M.D., Heidelberg, M.R.C.S., Eng., Professor of Anatomy and Clinical Surgery at the Marion-Sims College of Medicine, the operating Surgeon says: •

"The patient rallied fairly well after the operation, but she became greatly emaciated. Liquid food was given at short intervals and stimulants as indications demanded. In order to allay the extreme nervousness and irritability, antikamnia was given, and it acted promptly and satisfactorily in every instance."

Of the further history of the case, it may be further stated that, on the seventh day after operation, the patient took into her stomach, through the natural channel, the first food which had passed it in five years, and that in two months convalescence was regarded as fully established.

NORTH CAROLINA MEDICAL JOURNAL.

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No. 9.

Original Communications.

LOCAL ELECTROLYSIS AND ZINC-AMALGAM CATAPHORESIS IN MALIGNANT AND NON-MALIGNANT TUMORS.*

BY G. BETTON MASSEY, M.D., Physician to the Gynecological Department of
the Howard Hospital and to the Sanatorium for Diseases of Women
and the Nervous System, etc.

Before reporting the three cases on which this new treatment of morbid growths is mainly based, I must explain what I mean by local electrolysis and zinc-amalgam cataphoresis, and also advance reasons for my belief that these methods, either separately or together, present important advantages over cutting operations in certain cases of benign vascular growths and incipient cancers.

Local electrolysis means simply that the electrical decomposition of the tissue salts is confined to a localized area by the approximation of the poles. If both poles of a galvanic current be placed in the morbid tissue quite near

each other, the bulk of the current will be concentrated within the portion of tissue immediately between them, and but little will traverse the outside healthy parts. In practice they should not be further apart than from a half to one inch, though this depends entirely on the strength of current to be used and the size of the growth. So placed, an enormous current may be employed to dissolve a morbid tissue without affecting surrounding tissues, the parts having been chilled by a spray, or otherwise rendered anæsthetic, if sensitive. The surgical possibilities of such currents are quite remarkable. All the salts and liquids of a given growth lying between the points become a prey to such a current,

*Read before the Philadelphia County Medical Society, January 9, 1895.

the watery contents being turned into oxygen and hydrogen gases, and the complex salts into solutions of acids and alkalies. This, of course, attended with a material rise of temperature, but nothing like charring. If the tissue subjected to the process is soft and vascular, or juicy, there will be very little left between the poles after the gas has been given off but the acids and alkaloids dissolved in a turbid liquid remainder. If the tissue is tougher and more fibrous, a gristly residue will be found, which can be detached or left to be detached by nature.

The strength of current required to destroy tissue in this day depends altogether on its concentration at the active spot. A minute reproduction of the process occurs when we apply but two or three milliamperes to the papilla of a hair sheath, or to a mole on the skin; but to completely dissolve tissues between two or more needles a half inch apart requires at least four hundred to seven hundred milliamperes.

Whether this portion of my method has any advantages over a cutting operation in removing malignant or non-malignant external growths depends upon circumstances. It is clearly inapplicable to any growth within the body unless it is situated in a drainable natural cavity, as a considerable quantity of detritus must drain away. It also presents the disadvantage of not permitting healthy tissues to be united at once over the seat of the removed growth, a procedure, however, that is often of doubtful utility, as it frequently covers up portions of the disease that failed to be removed. The advantages of the method over

the knife are, on the other hand, by no means inconsiderable. It is absolutely bloodless, no matter where applied, thus enormously conserving strength after operations notoriously bloody; the edges of the undestroyed tissue remain non-absorbent, lessening risk of sepsis; and finally there seems to be some property in the galvanic current to cause a retrogression of the whole of a benign growth, even when but a portion is directly acted on, as in the Apostoli treatment of fibroids and the ordinary treatment of moles and other small skin tumors.

If the growth be a benign one, the application described will probably cover the whole of the active treatment. If it be malignant, on the contrary, the second portion of the method—zinc-amalgam cataphoresis—is employed, a procedure of great value in radically removing all remaining traces of a still localized cancerous growth.

Zinc-amalgam cataphoresis is electrically mono-polar, the single active electrode, which is always positive, being applied to the cavity left by removal of the greater portion of the growth, while the indifferent or negative electrode, in the shape of large conducting pads connected together, is placed on any convenient portion of the body. The active electrode is a freely-amalgamated zinc surface of one or two square centimetres area, which is held successively against all portions of the bottom and edge of the excavation. From 150 to 300 milliamperes are sufficient, the pain being controlled by cocaine in solution placed in the excavation beneath the electrode, to be conveyed into the tissues simultaneously with the nascent oxychloride

of zinc and mercury which is dissolved from the electrode by electrolysis.

By this procedure we search out and destroy all remaining spurs and paths of infection in the contiguous unhealthy and healthy tissues, the current seeking vascular and cellular paths of less resistance by preference in its journey to the other pole; and to the lethal effect of the current we add the well-known lethal effects of nascent mercury and zinc compounds. The surface of the amalgamated zinc electrode is consumed in the process—the mercury as well as the zinc—producing a mixed infiltration of the immediate polar region that is readily detected by the eye. Low organisms in the immediate neighborhood of the electrode quickly succumb, and the antiseptic value of the procedure is shown in the correction of any odors that may have accompanied the cancerous discharge. That the action is not confined to the immediate neighborhood of the electrode was well demonstrated in one case in which the zone-like base of a cancer was observed to lose its induration and shrink in places at least an inch distant from the contact point.

The applicability of the first portion of the method—local electrolysis—to a benign growth was shown in the following case:

Case 1. — Large intra-uterine cystic fibroid destroyed piecemeal by repeated applications of bipolar local electrolysis, resulting in a satisfactory cure.—Mrs. D., a nullipara, aged 39 years, was referred to me by Drs. Hemminger and Bixler, of Carlisle, Pa., in September, 1892. Six or seven years previously Dr. Hemminger had discovered an intra-uterine growth, the lower portion

of which later was found to be projecting from the dilated os, giving rise to pain and hemorrhage. Efforts to remove the growth by the *écraseur* were made by Dr. Hemminger, but, owing to its extensive internal attachment and great vascularity, only the projecting parts were removed. When the case was admitted to the Sanatorium the tumor was nearly the size of the adult head, the upper limit being even with the navel. The mass was symmetrical in shape, soft and semi-fluctuating. Examination showed the os fully dilated, through which projected a portion of the tumor the size of the foetal head. Around this projecting mass several fingers could be swept, showing freedom from adhesion to the uterus for three inches anteriorly and about six inches posteriorly. The mass was evidently a vasculo-cystic fibroid situated within the cavity of the uterus and attached to the uterine walls throughout three-quarters of its periphery. It was spongy, but very tough, bled easily and gave rise to a copious watery leucorrhœa. The conditions presented by this growth, particularly its cystic degeneration, absolutely contra-indicated the ordinary Apostoli treatment of fibroids on account of the danger of producing sepsis. I accordingly attempted its removal by morcellation, using the scissors, dull scalpel and fingers, but was compelled to desist, owing to the frightful hemorrhage. In this dilemma the possibility of localized destructive electrolysis occurred to me, and it was begun by the use of a bipolar instrument having four prongs, two to each pole. These prongs were buried in the projecting portion of the tumor, and 700 milliam-

peres turned on for six minutes. This dissolved quite a hole in the morbid tissue, making a spot too hot for the finger. The procedure was repeated daily as fresh portions of the growth were pressed down by the contracting uterus, without hemorrhage or marked discomfort, the possibility of sepsis being guarded against by a continuous douche for an hour or more after each application. Three months were consumed in the eradication of the tumor in this way, though it doubtless could be done in a second case in a third of the time, the final examination showing nothing but a roughened spot on the anterior wall of the contracted uterus. External measurements now showed the upper limit of the uterus two and one-half inches below the navel. The cavity was capacious.

A letter from Dr. Bixler, dated February 26, 1894, stated that the patient was quite restored to health, complaining only of prolapse of the vaginal walls, the latter, doubtless, due to the descent into the pelvis of a uterus that had so long been within the abdomen. The cavity was still large, and there was some thickening of the walls on both the right and left of the uterus. The os would only admit the first joint of the finger.

In November, 1894, two years after the patient's admission, her husband called and reported her as in good health.

Case 2.—Sarcoma of tonsil and soft palate cured by local electrolysis, followed by zinc-amalgam cataphoresis.—W. H. L., blacksmith, aged 38 years, was also referred to me by Dr. Hemminger, February 17, 1893. Five years before he suffered from an abscess of the ear. Two years before being seen by me

the left tonsil was found to be the seat of a tumor. He had recently been sent to the Hospital of the University of Pennsylvania, where, he says, malignancy was diagnosed and an operation proposed, which he declined.

A tumor about the size of a goose-egg filled the pharynx, involving the tonsil and soft palate, and threatening suffocation. Liquids could be swallowed with much difficulty.

The patient was placed on monopolar negative punctures, 30 to 60 milliamperes, daily. But little progress being apparent at the end of a week, the parts were cocaineized and subjected to bipolar local electrolysis with from 200 to 350 milliamperes, on two occasions. The separation of the eschar that resulted was accompanied by considerable pain and reaction, but as the place healed it was found that but little of the tumor remained. He did not return for further treatment until more than a year had elapsed, during which he seemed to be well. At this time, however, a renewal of the growth occurred, and it was about the size of a peach-stone when he was readmitted to the Howard Hospital for further treatment. During this second treatment zinc-amalgam cataphoresis was mainly employed, the treatment lasting six weeks and being carried deeply into the base of the growth. A complete cure resulted, and at an examination of the parts six months later, a healthy scar only was to be seen.

Case 3.—Inoperable carcinoma of the groin greatly relieved by zinc-amalgam cataphoresis; death from erosion of femoral artery and gangrene.—Colonel H., aged 62 years, was sent to me by Dr. A. W. Knox, of Raleigh, N. C., in the summer of 1893. One year before he

had noticed a lump in the left groin. On admission to the Sanatorium the tumor was the size of a large walnut, of a bluish color, and firmly attached by a broad base to the deeper parts of the thigh. It was situated just below Poupart's ligament and lay immediately over the femoral artery and vein, and was apparently attached to the latter, though the exact location of the artery was uncertain, owing to the general induration.

At the patient's request it was decided to make a tentative use of electricity. The central and projecting portion was accordingly destroyed by local electrolysis, making a slight cavity into which a solution of cocaine was poured. Into this the blunt amalgamated zinc electrode was pressed and daily applications of the cataphoresis made, with currents averaging 150 milliamperes. The immediate effect of the application was to whiten the edge of the growth in contact with the electrode, the whitened coating peeling off later. The indurated ring and base that now represented the growth was about three inches wide. Under constant applications the whole of this was gradually destroyed and replaced by healthy granulations, except the centre of the base, where the close proximity of the large artery rendered the applications unwise. At the end of three months the diseased area had been contracted to the size of a five-cent piece, but this was a deep cavity extending down to the great vessels, where it was thought to be unsafe to apply the current. The patient had increased twenty pounds in weight, and, though brought to the Sanatorium on a stretcher, was now able to walk a half mile or more.

During the continuance of this improved condition, however, the artery suddenly gave way one day at the bottom of the untreated spot. Drs. Thomas S. K. and T. G. Morton were called in and tied both artery and vein, which were found thoroughly infiltrated with cancerous material for some distance upward into the abdomen. Gangrene of the limb supervened, followed by death two weeks later.

An estimate of the value of the method in these three cases must be comparative, as cases similar to each are usually subjected to other methods, removal with the knife being the favorite. Hysterectomy in the first case would, of course, have involved removal of the ovaries also. Both this and removal of the uterus itself were avoided entirely, no natural structures being even injured, and the time required in the treatment was probably not longer than that necessary to recovery from the effects of abdominal section. In the second case the bloodless removal of a sarcoma of the palate was followed by a treatment that I hope will render the patient less liable to a return of the disease. The third case was, of course, a failure to cure or to preserve life, yet it is thought that life was prolonged by the very evident curtailment of the growth and improvement of health. Comparisons were hardly possible, however, as an operation had been refused by one surgeon as useless.

THE CHARCOT MONUMENT FUND.—The sum of the contributions to the Charcot Monument Fund thus far received by the American Committee is \$642.

A SEVERE TEAR OF THE NASAL SEPTUM.

By W. C. ASHWORTH, M.D., Kernersville, N. C.

That the country doctor must be a man of utilitarian ideas is abundantly proved by the following case. He must utilize and improvise to no small degree.

R. M., aged 17 years, was returning home in a wagon when the horse began to kick, and in doing so struck a board in the hands of the driver, which was driven backward, striking the lad on the bridge of the nose. On examination a severe tear of the nasal septum was discovered. The mucous membrane of the nose was actually stripped up for at least one-half inch.

After not a little effort we succeeded in drawing the displaced Schneiderian membrane downward in apposition with the raw surface below. Having succeeded in this, the question naturally arose, How can it be best held in that position? Suturing was first thought of, but the displaced mem-

brane was entirely too frail to hope for success by this procedure. Not having access to an instrument shop where we could procure ivory or vulcanite plugs as retentive apparatus, we decided to utilize a large size rubber catheter. Two plugs, about two inches in length, were accordingly cut off and sterilized for introduction.

We experienced much difficulty in introducing them through the posterior nares, but when once introduced answered the purpose admirably.

A suture was passed through their ends, which were allowed to project about one-half inch from the nasal openings; we then passed it up on the forehead, where it was firmly bound down by adhesive plaster.

The case, in every way, seems to be doing well.

I was rendered valuable service by Dr. H. T. Bahnson, of Salem.

Selected Papers.

REMARKS ON THE HYGIENE OF CHILDREN.*

By J. P. CROZIER GRIFFITH, M.D., Clinical Professor of Diseases of Children in the University of Pennsylvania, and Professor of Clinical Medicine in the Philadelphia Polyclinic.

Although there are several matters connected with the hygiene of infancy to which I wish to refer, the principal one among them relates to the preparation of the infant's food, and, being chief, may be considered first.

It is admitted by nearly all writers that the object aimed at in the feeding of infants upon artificially prepared food should be to produce a milk which resembles human milk chemically, as far as it is possible to attain this end. With this in view, analyses of various milks have repeatedly been

*Read before the College of Physicians, Philadelphia, February 6, 1895.

made in order to determine the relative proportions of the chief constituents—albuminoids, fat, sugar, water and salts. Analyses of human milk are somewhat at variance. Those of Leeds would give the albuminoids as equaling 2 per cent. Those of Meigs, Harrington and Biedert, on the other hand, place it at 1 per cent. Adopting the latter percentage as the result of the more recent investigations, and as sustained by the greater number of authorities we may formulate the composition of woman's milk as follows (Rotch):

Reaction . . .	alkaline.
Bacteria . . .	none.
Water . . .	87-88 per cent.
Total solids . .	12-13 "
Fat . . .	4 "
Albuminoids . .	1 "
Milk sugar . .	7 "
Ash . . .	0.2 "

While there are several species of animals whose milk may be used to replace human milk, none of them produce a secretion which is sufficiently like that of woman to permit of its use without previous preparation. Consequently none of them present any especial advantage over cow's milk, which certainly offers the most convenient basis upon which to construct an artificial human milk. The analyses of cow's milk, as ordinarily accepted, place its ingredients in about the following proportions (Rotch):

Reaction . . .	acid.
Bacteria . . .	present.
Water . . .	86-87 per cent.
Total solids . .	13-14 "
Fat . . .	4 "
Albuminoids . .	4 "
Milk sugar . .	4.5 "
Ash . . .	0.7 "

This applies, of course, to the average

herd milk. Certain breeds of cows, and, still more, individual cows give a milk which varies from the standard. It is the albuminoids of cow's milk, and especially the caseine constituting the greatest proportion of these, which give the baby so much trouble to digest. There are undoubted chemical differences in the caseine of the two sorts of milk, and these often cause difficulties which we are unable to overcome by any method of dilution or preparation. The mere matter of quantity of the different ingredients, however, we are able to manage. If we compare the two tables given we notice that cow's milk, as contrasted with woman's milk, is much too rich in albuminoids, contains the same percentage of fat, has nearly twice as much sugar and is slightly richer in ash. It is evident that by diluting cow's milk sufficiently we can reduce the albuminoids to the proper amount. It is also evident, however, that in so doing we diminish too greatly the amount of sugar and of fat. Our work, therefore, is clearly cut out for us, and consists in diluting cow's milk sufficiently to reduce the albuminoids to the proper percentage when the preparation is completed, and then in adding cream and sugar in sufficient amount to make up for the loss of these ingredients.

As regards the sort of sugar to be used, milk-sugar is that naturally present in milk, and it certainly seems rational, therefore, to employ it. It is possible that cane-sugar may answer just as well; and, indeed, in the case of some children, it seems to agree better; but these are only the exceptions. We should certainly try by the use of milk-sugar to approach as nearly as possible to the character of human

milk. With regard to cream, it is evident that its richness must determine the amount to be employed. Ordinary skimmed cream consists of 16 per cent. fat, while the thinner centrifugal cream contains about 20 per cent. fat. In constructing any milk mixture the character of the cream must be borne in mind, and the proportion varied accordingly. Finally, cow's milk, as it reaches the consumer, is very commonly acid, and contains bacteria, while human milk is alkaline and is free, or practically free, from bacteria. The destruction of the bacteria is to be accomplished by sterilizing or some similar process. For the removal of the acidity the addition of lime-water is very commonly employed, but a solution of soda is greatly to be preferred for several reasons. There are several objections to lime-water, and it is on account of these that, with these introductory remarks, I wish to recommend the following formula, which gives a milk corresponding, as far as possible, to human milk:

Milk Mixture.

Milk	2 ounce.
Cream (skimmed, 16 p. c. fat)	2 ounces.
or	
Cream (centrifugal, 20 p. c. fat)	1½ "
Soda-solution	½ ounce.
Milk-sugar	1 measure.
Water, enough to make	8 ounces.

This formula is a modification of one given by Dr. Rotch, which again was based upon one by Dr. Meigs, and that, I presume, a modification of previously existing ones. The Meigs mixture, as is well-known, contains "sugar-water," a solution of milk-sugar in water of a calculated strength.

As the author himself admits, this solution has to be made fresh every few days, since it will not keep. To obviate this difficulty Dr. Rotch used a little measure, and measured out the amount of sugar—three and three-eighths drachms—required for each eight ounces of milk mixture.

The soda solution is made of the strength of one grain of bicarbonate of soda to the one-half ounce of water. Analyses kindly made for me under the supervision of Dr. Marshall, of the University of Pennsylvania, show that the amount of this salt of soda, equivalent in alkalinity to a half-ounce of ordinary lime-water, equals very nearly one grain. A dozen packages of bicarbonate of soda, each containing one drachm, may be obtained from the druggist at very slight cost. One of these dissolved in a quart of water makes a solution of the proper strength. As the dozen packages are sufficient to alkaline 768 eight-ounce bottles of the milk-mixture, and as the soda solution will keep indefinitely, it is readily seen that the use of the solution is both cheap and simple.

We may now consider some of the reasons why a soda solution is decidedly to be preferred to lime-water. In the first place, it is a mistaken idea that lime must be added to the food for the sake of the lime salts required for the baby. Cow's milk, as the tables show, is decidedly richer than woman's milk in mineral matter, including lime, and its dilution does not reduce the salts below the proper amount. The sole object of the lime-water is to render the mixture alkaline, and soda does this just as well. I hasten to say that the use of soda is in no way original with me. Dr. Jacobi,

for one, long ago sanctioned it. Another objection to the lime-water is, that when added to milk in the quantity sometimes advised, its taste is quite evident and may be unpleasant to the baby. Another count against it is that when the milk mixture is heated a chemical reaction takes place between the sugar and the lime and a brownish color is produced. This is perhaps only an objection on an esthetic ground, but there seems no good reason for producing the offending color unless it is necessary. A fourth and more vital objection is that when the milk mixture is sterilized after lime-water has been added, the lime is precipitated in large measure, and the desired alkalinity is reduced or destroyed.

Finally, in the effort to overcome the latter objection, the difficulties of sterilizing are largely increased. It has been proposed, for instance, that the milk, water, sugar and cream be mixed in the proper proportions and sterilized, and that the lime-water then be added. We can only do this with safety however, just before the mixture is to be used, since an earlier removal of the cotton plug allows germs to enter. Consequently, the proper amount of lime-water must be added to each bottle when the child is about to be fed. With the varying amounts of nourishment which the baby takes at different ages it is evident that the calculation of just how much lime-water is to be added on each occasion is a matter not altogether simple. It will certainly seem to the mother to add greatly to the trouble in using sterilized milk; and it must be our object to make the process as easy as possible.

With regard to the amount of cream to be employed, the formula given allows a certain latitude, since the cream is a variable substance. In using the mixture the whole amount needed for the twenty-four hours should be prepared in the morning when the milk arrives, the proper amount placed in each bottle according to the age of the child, and the bottles placed in the sterilizer and heated to the degree of temperature desired.

With regard to the practice of sterilizing, it is undoubtedly true that the process often in some way makes the caseine more difficult to digest. On this account Pasteurizing has been proposed to take its place, as it does not materially alter the digestibility. The studies of Koplit and others show, however, that Pasteurizing, in the strict sense of the term, i. e., heating to 75° C. (167° F.), is not a safe method to be intrusted to mothers, since it does not satisfactorily kill the germs, which will develop in less than twenty-four hours. On this account a modified sterilizing is to be preferred. If the sterilizer is employed with the hood removed and the lid set slightly ajar and a brisk but not too hot fire is employed for about forty-five minutes, the temperature of the milk does not go above 80° or 90° C.—a temperature which does not materially affect the digestibility of the milk, yet which is sufficient to render the milk practically safe for twenty-four hours. I have myself tested the milk with the thermometer while it was being heated in this way.

Where predigestion of the food is to be combined with sterilizing, as is very often necessary in cases of illness, we may employ the following formula:

Sterilized Peptonized Milk Mixture.

Water 8 ounces.

One-half of a pepton-
izing tube,
or

One peptonizing tablet.

Dissolve.

Add milk 8 ounces.

Peptonize.

Then use—

Peptonized milk . . . 2 ounces.

Cream 1½ to 2 ounces.

Milk-sugar 1 measure.

Water enough to make 8 ounces.

Sterilize as already described.

This formula contains the same proportions as the preceding one, with the exception of the soda, which is increased in amount. No soda solution need be added, since the soda in the peptonizing powders or tablets more than takes its place.

In concluding my remarks upon feeding, I beg leave to exhibit this food-warmer, which will be found very convenient, and which is not as widely known as it deserves. When a baby wakes in the night crying for its bottle, the tedious warming of the milk to the proper temperature is, to say the least, a dreary process. This food-warmer, called the Penniston, consists practically of a hot-water bag with an outside pocket. One or more bottles of prepared milk, sterilized and corked, may be placed in the pocket on retiring, the compartment for water filled, and the whole covered with a woollen cloth.

The bottles are thus kept ready for immediate use.—*University Medical Magazine.*

A HINT IN PRESCRIBING.—Now that the price of empty capsules has become so greatly reduced that they are within the reach of all, even the country prac-

titioner, they should, seemingly, form as much a part of the *armamentarium therapeuticum* of the physician as the pocket-case or hypodermic syringe. Why cause patients to swallow a bitter pill in the form of a compressed tablet or tablet triturate, when the taste of such may be effectually masked by enclosing in the popular gelatin capsule? The disguising of the taste, moreover, entails no sacrifice of speedy efficacy, as the gelatin dissolves quickly and exposes its contents to the action of the stomach.—*Therapeutic Notes.*

USTILAGO MAYDIS DURING LABOR.—

Excellent results are obtained by the administration of the fluid extract *Ustilago maydis* in cases of primitive inertia of the uterus. The contractions appear twenty-five to thirty minutes, forty at the most, after the drug has been ingested, and are physiological, there being no convulsive or tetanic character about them. There is no contraction of the cervix, and the drug can be given without danger at no matter what time during labor, acting even better when dilatation is already obtained at the time of inertia. Delivery and the expulsion of the placenta are in no way delayed or prevented. No bad results accrue either to mother or child. This drug has been employed in Germany and America for twenty years, and in obstetrical practice is far superior to ergot.—DR. V. S. GROMSDEFF, in *Vratch.*

VALERIANATE OF AMYL.—A writer in the *Med. Record* says that in 2½ grain capsules every half hour, up to 5 or 6 doses, this agent will relieve the pain of nephritic colic or of cystitis, though it has no influence on the calculus.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

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Editorial.

SOCIETY NOTES.

As the time for the annual meeting of the State Society draws nearer, there is more and more evidence that it will be thoroughly successful and satisfactory. A goodly number of papers upon varied topics have been announced, and there will doubtless be a number of others presented but not appearing upon the program.

It is high time that all papers intended for competition for the two prizes were in the hands of the respective committees, but for the benefit of those who may have papers to present we give the committees below:

Duffy Prize—Dr. R. L. Payne, Lexington; Dr. A. W. Knox, Raleigh; Dr. A. Cheatham, Durham.

North Carolina Medical Journal Prize.

—Dr. W. P. Beall, Greensboro; Dr. R. L. Gibbon, Charlotte; Dr. W. H. H. Cobb, Goldsboro.

Among the committees to report at the coming meeting is the one appointed to consider the advisability of establishing the office of Permanent Secretary, or, as we prefer to designate the suggested office, Librarian. We hope the committee has given the matter some thought, for it is really one of importance. The Society has no library and no effects save what the Secretary lugs about with him at the annual meetings, and it will never have one until provision for caring for it be made. Transactions from other societies are received by the Secretary, but they are always left in the hands

of the retiring Secretary. The library of the Society would receive many of the best periodicals free and would also have many valuable volumes presented, and in the course of a few years would be of great value to members of the Society. The articles appearing in the various society transactions could be indexed and the leading periodicals kept on file, so that they would be accessible to members who might desire to refer to them in the preparation of a paper. We hope to see the office established at once.

The plan of allowing each chairman of a section to appoint two or three others as assistants to read papers in his section has worked well so far, and provides a better variety of papers. The Constitution provides that these appointments be confined to members of the Society, or those who intend becoming members at the meeting at which they are invited to read papers.

Those gentlemen who are appointed by the President as chairmen of sec-

tions should remember that the appointment is not an empty honor, but that something is expected of them. They should employ in the preparation of their essays great diligence and care, remembering their essays should be of interest to the many men of experience who will be present to hear them. And they should study their subjects so thoroughly that they will be able to enter into the discussion which is almost sure to follow a very good paper.

For the information of those who may desire to connect themselves with the Society, we will state that to become a member it is necessary to be present in person and sign the Constitution. The Society desires to have upon its roll all regular physicians in the State who are in good standing. The time is rapidly coming when a physician cannot afford to stand aloof from the Society, and we hope that this meeting will see a large number added to the roll.

Reviews and Book Notices.

Surgical Pathology and Therapeutics. By John Collins Warren, M.D., Professor of Surgery in Harvard University; Surgeon to the Massachusetts General Hospital. Illustrated. W. B. Saunders, Philadelphia. Price, cloth, \$6.00; one-half morocco \$7.00. By subscription only.

In his preface the author says: "The scientific portion of a surgical education was formerly regarded as something apart and ornamental, but it has now become an eminently practical feature of the student's curriculum." We find all the leading colleges now

provided with laboratories and a practical course in Pathology and Bacteriology is one of the special requirements for graduation in the best colleges.

Physicians who graduated as long ago as eight or ten years, and even four or five years in some of the colleges, feel the lack of this scientific training, and it is for the especial use of these that our author has prepared this most excellent volume. The first two hundred and eighteen pages are

devoted to a study of bacteriology, hyperæmia, simple and infective inflammation and the process of repair. This department is alone worth the full price of the work to one who would acquaint himself with this all-important subject. It is thoroughly illustrated in colors and full instruction is given in the details of laboratory work, such as the preparation of different forms of media, cutting and mounting sections, staining, the use of the microscope, etc., in a style which is delightfully attractive and easily comprehended.

The chapters on shock, fever, septicæmia and gangrene deserve especial attention. The section devoted to a study of tumors, carcinoma, sarcoma and benign tumors, comprises about one hundred and fifty pages. An appendix gives briefly a description of blood-serum therapy and the methods of preparing erysipelas toxine as used by Dr. William B. Coley.

The volume is a highly satisfactory work and should be in the hands of all who desire a clear, concise and up-to-date treatise on surgical pathology and therapeutics.

Dose-Book and Manual of Prescription-Writing, with a List of the Official Drugs and Preparations, and also many of the newer remedies now frequently used, with their doses. By E. Q. Thornton, M.D., Ph.D., Demonstrator of Therapeutics, Jefferson Medical College of Philadelphia, etc. Pages 334. Price \$1.25. W. B. Saunders, Philadelphia.

This work is intended as an aid to the student of medicine, both during his years of study as an undergraduate and in the early period of his professional career. The metric system of weight and measure is carefully explained and illustrated by diagrams.

Part II. gives rules for prescription-writing, including tables of nouns arranged according to their declension, and verbs according to their conjugation, with rules for the proper application of these in writing prescriptions. Under Part III., Official Preparations and Methods of Prescribing, will be found many useful hints, which will be of service, not only to the beginner, but to those of more experience, who would acquaint themselves with the many elegancies in the administration of remedies that are being constantly brought out. The volume closes with a list of official and officinal drugs and preparations. An appendix is supplied giving a list of questions for the self-examination of students.

It is one of Saunders' New Aid Series.

Report of the North Carolina Institution for the Deaf and Dumb and Blind, from December 1, 1892, to November 30, 1894.

This is the report of the President of the Board of Trustees to the Governor at the late session of the General Assembly. It sets forth the work of the Institution during the last two years, and tells the needs for carrying on the work. According to the report there were in the State in 1890, 1,592 blind persons, of whom some 550 are estimated to come within the school age, and yet at the time of the report there were only about 130 attending school. There is crying need for more accommodation at the Institution, but there is still more crying need for laws which can and will reduce the number of blind persons, by protecting the new-born from the destructive effects of ophthalmia neonatorum.

Asepsis and Antiseptics. By Chas. Milton Buchannon, M.D., Professor of Chemistry, Toxicology and Metallurgy, National University, Washington, D. C. With an Introduction by Professor Augustus C. Bernays. The Terhune Co., Newark, N. J., 1895.

This little volume gives the history of antiseptic surgery, its results, the various antiseptics used, methods of preparing the patient, instruments and dressings for an operation and the an-

tiseptics as used by the leading surgeons of the country. It is interesting to note that, while the list of drugs that are classed as antiseptics reaches the very respectable number of two hundred and more, in the reports from surgeons giving the antiseptics favored, very few mention anything other than carbolic acid and mercuric chloride, while nearly all mention moist heat!

Abstracts.

PERNICIOUS ANÆMIA.—Chas. T. W. Hirsch (*The Lancet*). In a report of one hundred and twenty-six cases, treated in the Rewa district, 1893, the writer states that forty-one cases died, thirty-four were returned to India as chronic invalids, twenty-five are still undergoing treatment. The remaining twenty-six have returned to work, though a considerable number are still weak. Of these cases ninety-eight were males and twenty-eight females, this preponderance of males probably being partially due to the fact that more male than female immigrants are introduced. In one hundred and ten cases the first symptoms noticed were those of gastric disturbance and slight diarrhœa. In ninety-four cases slight icterus was present. In all the anæmia was most intense.

Hemorrhages did not seem as common as would be inferred from the text-books. Four cases had metrorrhagia and eight showed signs of hemorrhage. In twenty occasional melæna was present. Dropsy occurred

in fifty-one cases. General anasarca, ascites and pulmonary œdema were common precursors of death. The urine was very dark in color. Blood-pigment was present in five cases, but no red blood-corpuscles were noticed. The blood in the cases examined showed microcytes and poikilocytes, leucocytosis and a quite marked reduction in the hæmoglobin. In the cases attended with diarrhœa the ova of the ankylostoma duodenale were frequently seen. In seven cases in which male fern had been given specimens of the ankylostoma were present in the stools.

A nitrogenous diet seemed to cause diarrhœa. A farinaceous diet with milk and cocoa, and consisting chiefly of sago or arrow-root, with bread and milk and roasted taro seemed most suitable.

Spirits with extras, such as eggs, formed useful additions to the diet. Arsenic was the most useful drug. It seemed to be better borne by the patients when taken in conjunction with

five grains of salol three times a day. Diarrhœa was best treated with intestinal antiseptics.

In the autopsies of twenty-six fatal cases the noticeable points were general pallor of all the organs and fatty changes in a large number of them. The heart showed the most marked fatty changes. In many cases the papillary muscles showed the "tabby-cat" situation. The liver was invariably large and pigmented. In seven cases the spleen was swollen and pulpy. In one case in which the suprarenals showed changes there were scattered tubercles in the lungs. In all other cases the suprarenals were normal.

The stomach was normal in all but four cases, in which it was much congested. The intestines in two cases showed signs of ulceration. In eighteen cases the ankylostoma was found in the duodenum. The blood-vessels were apparently healthy. In two instances the marrow of the long bones was excessively red and showed irregularly-shaped corpuscular elements.

The writer hopes to make a more complete and definite report later.—*Int. Med. Mag.*

THE MURPHY BUTTON IN INTESTINAL ANASTOMOSIS.—Dr. John B. Murphy (*Chicago Clin. Rev.*), in an analysis of all the cases to date treated with the Murphy button, draws the following conclusions:

1. The cicatrix produced with the button does not contract.
2. Size No. 1 ($\frac{3}{4}$ inch or .02 m.), or No. 2 (13-16 inch, or .022 m.) should be used for cholecystenterostomy.
3. End-to-end, side-to-side and end-to-side of the small intestines should

be made with button No. 3 (15-16 inch, or .025 m. in diameter).

4. End-to-end and side-to-side of large intestine should be made with button No. 4 (1 inch, or .026 m. in diameter).

5. A special large size ($1\frac{1}{4}$ inch, or .029 m. in diameter), with a long male cylinder, may be used in some cases of resection of the rectum with advantage, but it should not be used unless it fits loosely.

6. In intestinal obstruction resection with end-to-end union gives better results than lateral approximation, and should always be performed where practicable. The same operation should always be done in gangrenous hernia. In fecal fistula the bowel should be resected and united end-to-end.

7. The patients should receive liquid nourishment as soon as the effect of the anesthetic passes off. The bowels should be made to move as soon as possible after the operation, and frequent evacuations kept up.

8. If the button does not pass in three or four weeks, the rectum should be examined, as it may rest just inside the sphincter.

9. There has been one case reported of occlusion of the button by fecal impaction in the cylinder. This can be easily avoided by a mild cathartic immediately after operation.

10. When returning the intestines to the abdomen, they should be placed in parallel lines, especially at seat of approximation, to prevent sharp curves and obstructions. This occurred once with the button; many are reported following suture.

11. There is no danger from obstruction from the button, as not a single

case has been reported. This proves that the deductions made by Chaput, of Paris, from experiments on the cadaver, are erroneous.

12. There is no danger of extension of the pressure atrophy beyond the line of pressure.

13. Primary adhesion may be hastened in malignant cases by abrading the peritoneum with a needle. It is unnecessary in non-malignant cases.

14. A supporting suture is never necessary to secure union, and should only be used to relieve tension when the viscera approximated are forced out of position.

15. The mucous membrane should be pushed down in the cup of the button before closing it; if redundant, it should be trimmed off with scissors. It should never be allowed to protrude between the edges of the button when the button is closed.

16. While the button is easily inserted, the pathological condition requiring the operation may demand the greatest surgical skill to secure a favorable result.

17. The following points regarding the construction of the button should be noted before using it:

a. The spring catches should hold firmly in all positions, and should be made of a metal that will not be corroded by acids.

b. The elastic pressure-cup should be on the male half of the button (never on the female).

c. The edges of the pressure-surfaces should be very smooth and hemispherical in shape.

d. The spring under the pressure-cup should not be too strong.

e. There have been defective buttons on the market. The following firms

are at present manufacturing perfect buttons: J. J. Ryan & Co., Chicago; Truax, Greene & Co., Chicago; Geo. Tiemann & Co., New York; W. F. Ford & Co., New York; Down Bros., London, Eng.; Sharp & Smith, Chicago; Frank Kratzmueller & Co., Chicago.

18. If the button appears at the opening of the fistula after lateral approximation, do not try to force it through the opening; it is unsurgical; open the abdomen and (a) press it back to the anastomotic opening and through it on down the intestine, and it will pass; or (b) make a longitudinal incision in the bowel and take it out.—*Amer. Medico-Surg. Jour.*

McBURNY'S NEW METHOD OF INCISION IN THE ABDOMINAL WALL IN CASES OF APPENDICITIS.—J. E. Summers, Jr. (*Kansas City Medical Index*). It is a well-known fact that hernia is apt to follow any one of the usual incisions for any one of the varieties of appendicitis, and if by improvement of technique this tendency to hernia can be lessened or overcome, another advance will have been made toward coping successfully with this murderous disease. Dr. McBurney describes his new incision briefly as follows: An oblique incision in the skin, about four inches long, is made in the usual position and about one inch from the iliac spine. The external oblique muscle and aponeurosis are divided in the same line, not cutting any fibers across. After retracting the edges of the wound strongly, the internal oblique muscle is seen, the fibers of which cross somewhat obliquely the wound already made. With a blunt instrument, such as Kocher's director, the

fibers of the internal oblique and transversalis muscles can be separated without cutting more than an occasional fiber, in a line parallel with their course—this is nearly at right angles to the incision in the external oblique aponeurosis. The transversalis fascia and peritoneum are then divided. McBurney states that the drawback to this method of operating depends upon the absolute necessity for two pairs of retractors, the one for the first incision, the other for the opening made beneath and at right angles to it. He does not think it especially suitable for suppurating cases because of the somewhat limited space. He says: "It is not an easy operation, and should not be attempted by those who are unfamiliar with operations upon the appendix, and I again call attention to the fact that in performing it two extra assistants will be occupied part of the time with retractors." He has done the operation four times. Last July I did this operation, twice having learned of it before its inventor's paper appeared. The first case was upon an adult, the second a child three years of age; both recovered with strong cicatrices; and, although I operated for appendicitis a number of times during this period and since, yet the cases were not suitable for the incision.

In thus calling attention to this improved operation in selected cases, I desire to state that the number of retractors can be reduced to two, and only one extra assistant required, if so soon as the first incision is made two temporary sutures are introduced through the edges of the wound, about its middle, and each introduced, tightened and tied—the one through the skin over the left rectus muscle, the

other in the same line through the skin covering the right gluteus maximus muscle. This causes wide separation of the edges of the incision and does away with the inconvenience of the hands and retractors of an extra assistant. The wound is closed, of course, from the bottom, by layers of buried sutures, and thus "it will be seen that the gridiron-like arrangement of the muscular and tendinous fibers, to which the abdominal wall largely owes its strength, is restored almost as completely as if no operation had been done." I believe this operation suitable in most all forms of appendicitis if done early and before too extensive changes have taken place, requiring a very large opening for inspection and manipulation.—*Mathews' Medical Quarterly*.

PROSPECTS OF SERO-THERAPY.—The future of the serum-therapy in several infectious diseases is secured beyond peradventure. We may have been too enthusiastic and may have expected more than we can now obtain, perhaps; and possibly the enthusiasts may be painfully disappointed in their hopes for immediate wonders from the sero-therapy in diphtheria, tetanus, etc., but the fact will always remain that this system is unquestionably rational, and eventually it must yield success in therapeutics where all else must fail, for it is the one rational, truly physiological treatment—the only treatment, in my humble judgment, from which can be derived positive beneficial results in the cure of infections. It is Nature's own remedy. Man, with the serum, is using Nature's own weapon of defense; he has found out how he may add power to the natural resources

of the organization in the fight for human existence. This system of treatment is not a spontaneous eruption in therapeutics. It is not an explosion in over-zealous laboratory delvers, with more theory than experience; it is the result of years of research in all the laboratories and in the chief clinics of the civilized world, particularly France and Germany. And it is not only yesterday that it appeared in practice. It was several years ago that Kitasato applied his antitoxine satisfactorily against tetanus. Diphtheria had been treated successfully for a year or more. Syphilis is now treated experimentally with it; and lastly, your humble servant begs to submit to your indulgent criticism the result of his meagre labors conducted under extreme difficulties (without state or financial aid, that is, when these were most needed), particularly during the applications and experiments of the last two years. The future of sero-therapy in tuberculosis is, in my mind, very bright and very promising. The first and second stages have been benefited under unfavorable circumstances, by only slightly immunized serum. Consequently it is only fair to reason that with more strongly immunized serum, such as is now ready to use (I have only a limited quantity), much better and quicker results can be obtained, particularly if better hygiene and dietetic conditions obtain—*Amer. Therp.*

"INTRA PARENCHYMATOUS INJECTIONS OF ALCOHOL IN THE TREATMENT OF INOPERABLE CASES OF CANCER OF THE UTERUS." Vulliet (*Nouv. Arch. d'Obstet. et de Gynec.*, October, 1894.) There can be no question of

the great progress in the treatment of cancer of the uterus marked by the establishment of the operation of vaginal hysterectomy. The operation, nevertheless, saves only a very small proportion of cases. Uterine cancer is discovered too late; there is nothing to draw attention to it in its early stages. In the great majority of cases the disease is too far advanced for radical operation when it is seen for the first time by the physician. Palliative treatment of cancer of the uterus, therefore, becomes one of the most important problems of gynecology.

The use of the curette, cauterization, antiseptic and deodorizing medicaments and hæmostatics, have wrought a great change in favor of the sufferers from incurable cancer. The methods advocated by the author and by others probably mark a still further advance. Vulliet divides the cases into two groups: 1. The cases in which the cancer is so far advanced that it is useless to attempt extirpation by hysterectomy. 2. The cases in which hysterectomy has been performed, and there is reason to believe that the neighboring tissues are already involved or a recurrence has actually taken place.

The method of treatment consists in injecting absolute alcohol into the "parenchyma of the neoplasm" and of the surrounding tissues. Vulliet says that he began to practise his method in 1891, but he was anticipated in publication by H. Schulz, of Budapest, in 1892.

There are four cases reported, and all of them had been declared inoperable before they came under the care of Vulliet. In three out of the four there were difficulties in the way of

continuous treatment. The first case was that of a woman of 41. She had been seen ten years before, and had been then advised to undergo Emmet's operation on account of a deep laceration of the cervix, but declined to have any operation. She had then been treated by other medical men with caustics. In June, 1891, she began to have abundant irregular hemorrhages. In September she consulted a specialist, who expressed regret that she had not come to him earlier. He scraped the uterus, and two months later the discharge returned. In May, 1892, she began to suffer from lancinating pains. After being under treatment in several places, she returned to Geneva, and was afterwards continuously under the care of Vulliet. Her condition before the treatment was begun is thus described: "The lips of the uterus have disappered; the ulceration has produced a crater of which the opening encroaches upon the vagina, especially on the left side. The parametrium on the same side is engorged and hard, and the hardness extends laterally the whole depth of the broad ligament. The ulceration is an inch deep, and there is abundant hemorrhage from it on the slightest touch."

The treatment was begun by two injections a week, and the ulceration soon became arrested. There was a sort of general retraction of the tissues, and the parts took a healthier aspect. About the beginning of August the first sign of genuine cicatrization was seen. It appeared on the margin of the ulcer posteriorly. There was then such rapid improvement that it was thought feasible to extirpate the uterus by abdominal section, or at least to remove the appendages, so as to put

an end to the menstruation, which was profuse and painful. The operation was attempted in the end of August, and ended with removal of the ovaries only; the uterus could be neither raised nor depressed.

Treatment by injection of alcohol was soon resumed and cicatrization went on rapidly to completion.

The treatment which showed itself efficacious as to the symptoms of hemorrhage and sanious discharge has no effect on the pain. It is necessary to have recourse to sedatives as the cicatrization proceeds.

Vulliet gives the details of three other cases rather less satisfactory, and remarks on the special features of each.

As to the technique, details are given very fully. The field of operation is thoroughly cleansed by a solution of soda, followed by the use of sublimate solution 1:1000. The patient is placed in the genu-pectoral position the better to expose the parts. As a rule, an anesthetic is not required. Three or four hypodermic syringes filled with absolute alcohol are held in readiness. The first injection is made into the centre of the neoplasm. In schirrus the fluid penetrates at once into the firm substances; in soft cancer it may enter friable material and not be retained. In such a case it is necessary to push on the syringe till it touches the more solid base of the growth. Only three or four drops of the alcohol are injected at any one spot. When the injection with the first needle is completed, the syringe is not withdrawn, but the proceeding is repeated in another portion of the tumor with a second syringe, and so on. The object of leaving the syringes is to prevent the reflux of the alcohol which occurs

when the needle is withdrawn immediately. When the patient is not sensitive from nine to a dozen injections are effected at a sitting, proceeding from the centre towards the periphery. The last circle of injections is made in the apparently healthy tissue which surrounds the ulcerated part.

The injections are for the most part well borne, especially at the beginning of the treatment, and according to Vulliet there appears to be no reason why the treatment should not be carried on in the consulting room or the out-patient department of a hospital. In nervous subjects and those weakened by loss of blood and deranged by the use of morpine it is occasionally necessary to administer an anesthetic so as to permit of effective treatment. The number of injections in such subjects may also be greatly diminished.

Among the phenomena observed when the fluid was injected was a change in the color of the tissues. Immediately after the injection of the alcohol into the parenchyma all the zone of the tissue of which the puncture was the centre became suddenly of a greyish white color as if it had been injected by a liquid of that color. Whatever may be the cause of this change it proves the immediate diffusion of the liquid in the parenchyma over a space which often measures more than a centimetre in diameter.

On two occasions the injections were immediately followed by disagreeable sensations through the whole body, but especially in the hands. One patient said she felt as if she had quicksilver circulating in her veins. She very soon recovered, and without any apparent bad effects.

The author says he as employed

these "instillations" for a sufficiently long time to convince him that the method is complete and capable of giving as good results as can be obtained by any other palliative treatment of cancer of the uterus. He has not found any advantage in supplementing the method by any other measures, and he has not seen any good from the use of other substances in solution in the alcohol. This last declaration may be considered as a reference especially to the treatment of H. Schulz, who employs a solution of salicylic acid.

In some exceptional cases Vulliet recommends the use of the blunt curette. When by the action of the alcohol the deep-lying tissues become harder there remains on the surface a thin layer of tissue, which neither disappears nor becomes hard, nor organizes into a cicatrix. It may be advisable to use the blunt curette to clear away only loose tissue. He occasionally follows this up by touching with zinc chloride or the thermo-cautery. "The curette and cauterization acting on the surface, and the injections in the depth of the tissue, the cancerous elements find themselves caught between them"!—*Med. Chron.*

FISTULA IN ANO.—In doing a radical operation for fistula the following points, according to Dr. J. H. Bacon, should be observed:

1. Never sever the sphincters at more than one place at the same operation, no matter what the complications may be, otherwise incontinence is sure to follow.

2. Unless all the channels are followed up and laid open the operation will fail of its purpose.

3. Fistula resulting from tubercular abscess must not be operated upon if there is sufficient tissue destruction of lung to produce hectic fever, sweats, etc., unless the fistula is causing severe painful spasms of the sphincters, then it should be divided at any stage.

4. After laying the fistula tract open the wound must be made to heal from the bottom, and as the cutaneous or mucous side of the wound is better nourished it will throw out a more healthy granulation, that tends to bridge over and close the slower granular surface at the bottom, thus leaving a fistula remaining.

5. When the fistulous tract is not too complicated it should be dissected out entire and the wound brought together, beginning at the bottom with continuous catgut sutures and approximating the surfaces in successive layers until the whole would be closed.—*Northw. Med. Jour.*

ARE THE UTERINE ENDS OF THE FALLOPIAN TUBES EVER PERVIOUS WHEN THE TUBES CONTAIN PUS.—Notwithstanding the recent emphatic declaration of one of our most noted gynecologists to the contrary, numerous cases in which tubes are pervious are being reported. Dr. T. J. Watkins, of Chicago, says that while separating the adhesions of a pus tube on left side he noticed that the tumor suddenly decreased in size without rupture. Fully four drachms of pus were forced out through the uterus into the vagina, over the vulva, and onto the operating table. He thinks that this case, however, could not have been relieved by curettement, drainage, massage or galvanism, because, first, the patient had an abscess of the opposite

tube and ovary, and, second, because the walls of the left tube were so distended, adherent and thickened as to be incurable by any operation short of an abdominal section.

Dr. F. A. Glasgow, of St. Louis, practices dilating the cervix with sterilized elm tents in these cases, saying, "we can gradually slip in tent after tent, first dipping them in glycerin or water for a moment, until the cervix is full. And now place a wad of cotton tied with a string just against the cervix; the tents are cut off to a length which will just permit them to entirely enter the os externum without pressing on the fundus; they have each a short string attached to them. This is kept up for a number of days, the patient being kept in bed. Sometimes the dilatation causes pain; often none. If, when the uterine canal is large enough to admit the finger, there is no discharge of pus with relief of the symptoms, I anesthetize and curette. I now pack with gauze and repeat for a number of days. I cannot at present recall a case of tubal distention where I did not get some discharge after packing with gauze or dilating with tents for some time. Very often there is a very offensive watery discharge comes through the packing, even soaking into the bed. Every case is permanently relieved."—*Pacific Medical Journal*.

THE TREATMENT OF BRONCHO-PNEUMONIA.—Dr. Nothnagel (*The Medical Press*) states that the auxiliary muscles of respiration must be acted upon in order to avoid asphyxia, cyanosis and carbon-dioxide-poisoning. For this purpose, water-baths or Priessnitz's wet cloths are used. Under this treatment

the patient is placed in a bath and a spray of cold water driven against the thorax, or the ordinary douche will serve the same purpose. To avoid venous stasis the position of the patient should be changed every hour by the nurse, and he should not be allowed to remain long upon his back. The nurse should see that the patient makes four or five deep inspirations every half-hour. Drugs are administered for the purpose of removing the secretions by expectoration. Inhalations are useless, and ammonium chloride, sodium chloride, oleum terebinthinæ are no better. A few expectorants may suit special cases, as decoction of senega and ammonium chloride. To relieve cough we have at hand narcotics, such as belladonna, hyoscyamus, that greatly weaken, and are avoided at the present day. Codeine, in double the dose of morphine, has been much lauded as a remedy for cough. If the cough be severe, morphine with aqua laurocerasi may be given in small quantities; the latter alone does not afford relief. Morphine may be used with benefit in some so-called dry coughs—those produced by hyperesthesia of the vagus branches in the lung. If the patient swallows all that comes up, or when he is too feeble, and in this case moist râles will be heard, or when the mucus is tenacious, we must conclude that the cough is dry. For tenacious secretions the stimulating expectorants, as benzoic acid and senega, are indicated, or sodium chloride with warm water as an inhalation may give relief.—*American Jour. Med. Sci.*

PARALYSIS CONSECUTIVE TO A PSEUDO-MEMBRANOUS ANGINA RECOGNIZED

AS NON-DIPHTHERITIC BY THE BACTERIOLOGICAL EXAMINATION.—Under the above title Bourges (*Archives expérimentelle de Pathologie*, January, 1895) describes a case with the clinical picture of diphtheritic paralysis, but in the throat of which no Klebs-Löffler bacilli were found. The case occurred in a boy of seven years, in whom appeared suddenly high fever, headache and pain in the throat. The next day the tonsils were gray and swollen, but no false membrane was present. Two days later the local signs had gone. Nine days from the first attack a second attack of malaise and fever occurred, with marked erythema on the neck, forearms and limbs, but not on the trunk; the throat was normal, and the eruption disappeared two days later without desquamation.

A week from the beginning of this second attack the patient was taken with headache, fever and sore-throat, and the next day a white, easily detachable false membrane was present over the tonsils; this remained until seventeen days later, when it had entirely gone, and the child was in fair health, though remaining pale and thin.

Sixteen days after the disappearance of the membrane the child became restless at night, and the next day complained of abdominal pain and headache; a little fever was present.

Two days later convergent strabismus developed, followed in forty-eight hours by usual intonation of the voice and regurgitation of liquid food.

The regurgitation disappeared in a short time, but three days after its appearance the child was unable to stand, though still able to move its limbs in bed.

The paralysis remained incomplete, sensation normal, knee-jerks absent. Cure was complete at the end of two months.

The bacteriological examination of the false membrane showed the only virulent organism present to be the streptococcus pyogenes. The child's mother, who had been constantly nursing him, was attacked during his illness by a similar pseudo-membranous angina in which the sole pathogenic organism was the streptococcus pyogenes.—*Amer. Jour. Med. Sci.*

DIPHTHERIA BACILLUS IN A PNEUMONIC LUNG.—Dr. A. P. Ohlmacher (*N. Y. Med. Jour.*) makes a preliminary report, giving an abstract of the autopsy in the body of an insane man dead of labor pneumonia. During the progress of the autopsy several tubes of Loeffler's blood-serum culture medium, were inoculated from the substance of the affected lung and from the meningeal pus, with the observance of strict bacteriological precautions. Cover-glass smears were made from the pus under the pia mater and from the tissue of the diseased lung. The suture preparations from the meningeal pus showed the diplococcus lanceolata only. The two tubes of Loeffler material inoculated from the pus of the meninges showed only the diplococci of pneumonia. The two tubes inoculated from the substance of the right lung showed pronounced culture; after twenty-four hours' stay in the incubator, and plates of glycerine agar were prepared from these cultures. On both sets of these plates two distinct kinds of colonies developed and a subsequent study showed them to be composed of *strepto-*

coccus pyogenes aureus and the other of *Bacillus diphtheriæ*. The diphtheria bacilli obtained from this case has been studied through several generations and been found to possess the usual morphological and physiological characteristics of this species. It is a moderately long example of this bacilli with a tendency to form the irregularities in shapes usual in the longer varieties.

NUCLEIN IN DIPHTHERIA.—At a meeting of the Society of Medical Progress of the New York West Side German Dispensary, held 14th April, Dr. William Jacobson read a paper on the use of nuclein in the treatment of diphtheria and other contagious diseases. For the introduction of this agent (which is a normal constituent of blood-serum chemically represented by 49 parts of hydrogen, 32 parts of oxygen, 29 parts of carbon and six parts of phosphorus), he said we were indebted to the researches of Professor Victor Vaughan and Dr. Charles McClintock, of the University of Michigan. Out of 200 cases of diphtheria, scarlet fever and measles, which were observed during several months, he claimed that there had been only nine deaths, and that in these cases the fatal result was due either to the fact that the nuclein injections were not made until the disease was too far advanced for any remedy to be of any service, to necessarily fatal complications, or to lack of proper care or to other unfavorable conditions affecting the patient. The theory upon which nuclein was employed was that, as nuclein was found to a greater extent in the blood of healthy than in that of diseased persons, it was the real food upon which the blood-tissues fed, and

as such was Nature's own antitoxin. Nuclein was first tried on a girl four years of age, who was suffering from diphtheria. The agent was introduced into the system hypodermatically and in a very small quantity. It was found that the temperature at first slowly rose, and then had a sudden drop. The pulse soon became normal, and in three days the child showed no sign of disease. The result was so successful that the treatment was resorted to in other cases, and with similar good results. "To treat fever," said Dr. Jacobson, "we must remove the cause, the toxins, and especially, as in contagions, the microbe and its poison. Nuclein is the substance to which the cell owes its resisting power, and if present in sufficient quantity the microbe and its toxine are prevented from attacking the cell, and are ultimately destroyed."—*Boston Med. Surg. Journal*.

TREATMENT OF DIGESTIVE DISORDERS.—In the management of cases of digestive disorders, in the clinic of Dr. S. Solis-Cohen, treatment is very often begun by a thorough cleansing of the alimentary canal, either through purgation by calomel or irrigation of the intestines. After this the patient is placed for a time upon an exclusive milk diet, the following routine being usually carried out. One drachm of pancreatin and three drachms of sodium bicarbonate are mixed, divided into twenty-four powders and dispensed in waxed papers. The patient is instructed to dissolve one powder in one ounce or two ounces of cold water, and to add the solution to six or eight ounces of warm milk. The mixture is to be stirred quickly and

then drank slowly during five minutes. The object of adding the pancreatin and alkaline powder is, of course, to digest the milk without calling upon the patient's secretions; but in order to avoid the unpleasant taste of peptonized milk, the artificial digestion is allowed to go on in the patient's stomach. The milk, with the digesting powder, is taken every third hour. In milder cases this plan is continued from two or three days to a week; in severer cases for longer periods. Acute indigestion needs, as a rule, no other treatment. Chronic cases receive, later, suitable medication.—*Philadelphia Polyclinic*.

A QUICK METHOD FOR THE FILTRATION OF A SMALL QUANTITY OF URINE.—For a long time it has been a problem to know how, with the apparatus usually at hand, to obtain quickly and easily a small quantity of clear urine from a cloudy specimen in order to make the usual test for albumin.

The following plan, which has proved extremely easy and satisfactory in my own case will, I think, be found equally so in the hands of others: A small quantity of the cloudy urine is placed in a test-tube, the mouth of the test-tube plugged with cotton with a moderate degree of firmness. A second test-tube is placed with its mouth to the first. The position of the tubes is now reversed so that the one with the urine is bottom up. The upper tube is now carefully and gently heated over the flame of a Bunsen burner or alcohol flame, and the expansion of the air above the urine immediately forces it through the cotton plug, and the filtered urine collects in the lower tube. In this we imitate to

a degree the rapid-filtering apparatus of laboratories, but use pressure above the fluid to be filtered instead of an

air-exhaust below,—Louis F. Bishop, M.D.; *The Boston Medical and Surgical Journal*.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From April 4th, 1895, to April 17th, 1895:

Robertson, Capt. Reuben L., Assistant Surgeon, is granted leave of absence to, and including, July 3d, 1895, on which time his resignation has been accepted by the President to take effect.

Pilcher, Capt. James E.—Leave of absence for two months, on surgeon's certificate of disability, is granted Capt. James E. Pilcher, Assistant Surgeon.

Banister, Capt. Wm. B., Assistant Surgeon, is relieved from duty at Fort McIntosh, Texas, and ordered to duty at Fort Omaha, Nebraska.

Reynolds, First Lieut. Frederick P., Assistant Surgeon, is granted leave of absence for one month, to take effect upon his relief from duty at the U. S. Military Academy, West Point, New York.

The following named officers will report in person to Major Calvin DeWitt, Surgeon, President of the examining board appointed to meet at Fort Leavenworth, Kansas, on Wednesday, May 1, 1895, at such time as they may be required by the board, for examination into their fitness for promotion, and upon conclusion of their examination will return to their proper stations: First Lieut. Thos. U. Raymond, Assistant Surgeon; First Lieut. Henry D. Snyder, Assistant Surgeon; First Lieut. Allen M. Smith, Assistant Surgeon; First Lieut. Joseph T. Clarke, Assistant Surgeon.

THE NAVY.

Two weeks ending April 27th, 1895:

Barnum, M. W., Assistant Surgeon,

ordered to examination for promotion May 15 next.

Page, J. E., Assistant Surgeon, ordered to examination for promotion May 15, next.

Brathwaite, F. G., Assistant Surgeon, ordered to the Naval Hospital, Norfolk, Va.

Walton, T. C., Medical Inspector, ordered as Delegate to the American Medical Association, Baltimore, Md.

Dickson, S. H., Surgeon, ordered as Delegate to the American Medical Association, Baltimore, Md.

Pickrell, G. McC., detached from U. S. S. "Newark," home and two months leave.

Stone, L. H., Assistant Surgeon, ordered to the U. S. S. "Newark."

Loundes, C. H. T., P. A. Surgeon, detached from Coast Survey Steamer "Hatteras" and to Mare Island Hospital.

DeValin, C. M., Assistant Surgeon, detached from U. S. S. "Vesuvius" and to the U. S. R. S. "Vermont."

Smith, Howard, Surgeon, retired, leave extended six months to remain out of the United States.

MARINE HOSPITAL SERVICE.

For 15 days ending April 15, 1895:

Purviance, George, Surgeon, detailed as Chairman of Retiring Board for physical examination of officers of Revenue Cutter Service, April 8, 1895.

Austin, H. W., Surgeon, detailed as member of Retiring Board for physical examination of officers of Revenue Cutter Service, April 8, 1895.

Carter, H. R., detailed as Recorder of Retiring Board for physical examination of officers of Revenue Cutter Service, April 8, 1895.

Glennan, A. H., P. A. Surgeon, granted leave of absence for three days, April 9, 1895.

Stoner, J. B., P. A. Surgeon, when relieved to proceed to Philadelphia, Pa., for duty, April 5, 1895.

Guiteras, G. M., P. A. Surgeon, granted leave of absence for six days, April 5 and 8th, 1895.

Perry, J. C., P. A. Surgeon, to proceed to Portland, Oregon, and assume command of Service, April 5, 1895.

Eager, J. M., P. A. Surgeon, to

proceed to Gulf Quarantine Station for temporary duty, April 5, 1895.

Stewart, W. J. S., Assistant Surgeon, to proceed to Philadelphia, Pa., for temporary duty, April 9, 1895.

Norman, Seaton, Assistant Surgeon, to proceed to Norfolk, Va., for temporary duty, April 9, 1895.

Cumming, H. S., Assistant Surgeon, to proceed to Boston, Mass., for temporary duty, April 9, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Dr. J. R. Irwin has removed from Croft to Charlotte, N. C.

We regret very much to learn that Dr. Oscar McMullan recently sustained a very severe injury in a run-away. Both right arm and leg were rendered useless for a while, but we are glad to note improvement has set in. We hope he will soon be all right.

The Rio Chemical Co., of St. Louis, have issued a neat and useful wall atlas of the world, which has been sent to all physicians whose address they had. Any of our readers who have failed to receive one, will do well to send his address to the publishers.

The doctors of East Hampton, N. Y., are puzzled over a woman who apparently died about April 18th, but whose body has been lying in its coffin for a week with no evidence of decomposition. Why don't they hold a — mortem and find out whether or not she is really dead or shamming?

A SUGGESTION TO THOSE ATTENDING THE MEETING IN GOLDSBORO.—In making up your budget of expenses remember to put in the item—\$2.00 for the JOURNAL. Should it be you are a little behind, and it is convenient, you might come prepared to pay the whole balance.

The monthly mortuary report of Wilmington for March, 1895:

	Whites.	Col.	Total
Population.....	9,000	13,000	22,000
Total deaths.....	13	26	39
Annual death rate rep.	17.3	31.7	21.3

For April, 1895:

Total deaths.....	10	12	22
Annual death-rate rep.	13.3	11.1	12

Dr. Augustus C. Bernays, of the Marion Sims College of Medicine, of St. Louis, has published a report of the surgical clinic which he held last November complimentary to a number of physicians who were *en route* to the meeting of the Mississippi Valley Medical Association. The report is issued in handsome style and is illustrated. One half-tone picture shows the sur-

geon, his assistants and nurses in the process of purification. The operations were: Occlusion of Œsophagus; Lymphosarcoma of Neck; Osteoplastic Resection of Skull; Nephrectomy; Neurectomy; Appendicectomies.

Messrs Wm. R. Warner & Co. have removed their New York Branch to the more commodious and convenient quarters, No. 52 Maiden Lane. This change became imperative, the space at their former salesrooms having at last become inadequate to admit of the proper conduction of their largely increased business.

There will constantly be on file a complete list of the leading Medical and Pharmaceutical Journals of the United States, and a cordial invitation is extended to the profession to consult them at any time.

THE DISCOVERY OF HELIUM.—The recent account of the discovery of a new element, argon, in atmospheric air, by Lord Rayleigh and Professor Ramsey, is already followed by the announcement by the latter that in his experiments with the mineral cleveite, for the purpose of discovering a compound of argon, in which cleveite was treated with sulphuric acid, argon was evolved, but associated with some strange gas. This turns out to be helium, the lightest of all the elements, the existence of which had already been inferred from the line D, in the solar spectrum. The existence of the new element was in a few days confirmed by Professor Crookes, who identified its spectrum. The discovery of an element whose existence had been previously inferred on theoretical grounds, is certainly a most remarkable vindication of chemical theory.

The mineral cleveite was supposed to yield nitrogen when acted upon by sulphuric acid. The evolvment in its place of a mixture of argon and helium, suggests the introduction of new and extremely complicated factors into the already complicated chemistry of the nitrogen compounds.—*Ex.*

“For the Medical Profession Only,” by no means excuses the sending of disgusting nude pictures to every physician's address through the mail, unsealed. Instead of excusing, it aggravates the offence, because pruriency is piqued by the very device. The mail of a large majority of physicians is delivered at the residence-address, and not at the consultation-office. A high-handed devil-may-care answer to criticism of such doings plainly says to the medical profession: “This matter of the use of the governmental mails for the dissemination of purely commercial advertisements, made in such a way that the reputation of the medical profession is used and bandied about and jeopardized—this has to be stopped!” The dissemination of genuinely scientific medical literature has already been endangered by this abuse, and should the public, however mistakenly, visit upon us the indignation of laws restricting or forbidding the use of the mail for legitimate medical literature, it would be at once a public and a professional calamity. But this calamity would be due to our endurance of, and indifference to, the impertinence of advertisers who fill the mails with filth that passes under the pretext of being medical, but which is anything but medical.—*Med. News.*

WOODEN BREAD.—A German periodical devoted to wood industries an-

nounces that food products consisting partly of wood are now manufactured. At Berlin a factory has been built which is turning out about two hundred quintals of wooden bread a day. Sawdust is subjected to chemical treatment, after which it is mixed with one-third farina and prepared like ordinary bread. The product at present serves only as food for horses, but the Berlin Tramway Company, which is the most important customer of the factory, is

well pleased with the results. The manufacturers say that wooden bread constitutes also an excellent food for man.—*Ex.*

The police census shows the population of New York City to be at present 1,849,866, of which 925,310 are males and 924,556 are females—a difference in favor of males of 754. The increase since October, 1890, is 139,151.

Reading Notices.

On account of the unveiling of the Confederate Monument at Raleigh, N. C., May 20th, 1895, the Cape Fear and Ya kin Valley Railway Company, will sell round-trip tickets to Raleigh, N. C., at the rate of one cent per mile traveled; tickets to be sold May 19th and 20th, 1895, with final limit May 22d, 1895. W. E. KYLE, Ag't.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page 13, this issue.) See remarks on their Arom. Fluid Pepsin also.

Free of Charges.—The therapeutical applications of Peroxide of Hydrogen (medicinal), Glycozone and Hydrozone, by Chas Marchand, Chemist. Ninth edition.

This book of 200 pages, which contains all information on the subject, with reprints of elaborate articles by leading contributors to Medical Literature, will be mailed to doctors, mentioning this publication.

Send full address to Chas. Marchand, 28 Prince St., New York.

Dr. Deering J. Roberts, editor of the *Southern Practitioner*, Nashville, Tennessee, writes: "Elixir Six Bromides (W.-G.'s)—From a recent and thorough trial of this preparation, we find that it is justly entitled to the claim made for it, 'to rank as one of the most valuable therapeutic agents in quieting non-inflammatory excitement of the reflex centres of the cord of the peripheral afferent nerves, of the genital function and of the cerebrum.'" In one case in which it was used—neurasthenia—with nervous irritation following parturition, in which everything else failed, its result was most happy. There was no depression of an already weakened circulation, due to a severe post-partum hemorrhage; but, on the other hand, it was greatly improved. We have one case of epilepsy, in which it is doing more good than any previous remedy yet used. In other cases its results are good in quieting nervous irritability."

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Original Communications.

ECTOPIC PREGNANCY.

Remarks made by invitation before the King's County Medical Association, Brooklyn, in the discussion of Dr. L. Grant Baldwin's paper on Ectopic Pregnancy, April 9, 1895.

BY AUGUSTIN H. GOELET, M.D., New York.

In deciding upon the course to be pursued when the diagnosis of ectopic gestation has been made, there are three points which must be considered. First, whether the tube is still intact or unruptured and the stage of the pregnancy; second, if rupture has occurred, whether it is between the folds of the broad ligament or extra-peritoneal; third, whether it is intra-peritoneal.

Operative interference should never be withheld in the presence of rational indications for its necessity, but it is manifestly correct for the advocates of primary cœliotomy to contend that the existence of tubal pregnancy is an indication for immediate operation and

that rupture is always imminent. It is true that rupture has occurred as early as the fourth or fifth week, but, according to Winckle, whose experience has been exceptionally large, it occurs most frequently between the third and fourth month. According to Tait, also, it occurs more frequently from the twelfth to the thirteenth week.

When rupture with hæmorrhage occurs between the folds of the broad ligament immediate operative interference is not demanded or indicated, as it is comparatively harmless and may be left to Nature, or absorption may be promoted by the use of electricity if the growth of the fœtus has

been arrested at a sufficiently early period. Even Tait insists upon the comparative harmlessness of hæmorrhage in this location following rupture. If suppuration occurs later, the whole mass can be more satisfactorily evacuated through the vagina than by cœliotomy. It is more easily reached by this route, and the operation involves less shock and less risk to the patient.

Even where intra-peritoneal rupture occurs the records of cœliotomy show that hæmorrhage is often found to be moderate in amount, and not in itself sufficient to furnish occasion for immediate surgical interference. (Lusk, in *Clinical Gynecology*, page 752.)

The patient should be very closely watched, and if the hæmorrhage is uncontrollable cœliotomy should, of course, be resorted to at once, and without delay. If, however, as is often the case, it is limited in amount, it may be let alone, and if the patient be kept absolutely quiet, the clot will be surrounded by lymph as a result of the inflammatory action which supervenes, and it is eventually shut off from the general peritoneal cavity. Subsequently, if operative interference becomes necessary, the vaginal route will be safer and more satisfactory than opening the abdomen. It is safer to evacuate the clot at a later period than to do so immediately, because by waiting the ruptured blood-vessels are allowed to close, and we would no longer have hæmorrhage to contend with. It has, no doubt, been the experience of many of you that these cases have been conducted to a successful termination in this manner. In this connection, a case which I reported in the *Medical Record*, about

1880, will be interesting, as showing that a favorable termination may result in removal by this route, even when suppuration has occurred. A patient came under my observation who was supposed to be suffering from a hæmatocele of considerable size. For some unknown reason suppuration occurred and it was evacuated through the vagina and the diagnosis was made clear. It proved to be an ectopic gestation, the four months fœtus being removed in a state of decomposition. Drainage was maintained through the vagina and the patient made good recovery, remained in excellent health, and bore several children afterwards.

I am strongly opposed to operative interference for all cases of pelvic hæmorrhage, that is, cœliotomy for these conditions, though this course has some strong advocates who believe that it is nearly always due to ruptured tubal pregnancy. The folly of such a course, which, it must be admitted, submits the patient to needless risk, is frequently illustrated. In this connection I recall a case upon which I operated ten or eleven years ago, which was reported in the *Annals of Gynecology*. A diagnosis of fibro-cystic tumor was made and confirmed by the late Dr. C. C. Lee, the patient coming to me from a distant part of this State and giving an imperfect and unsatisfactory history. The operation revealed a mistake in the diagnosis, the tumor proving to be a very large hæmatoma, which projected high up into the peritoneal cavity. The case terminated favorably after evacuation through the abdomen and drainage through the vagina, but the operation would not have been performed if a correct diagnosis could have been

made previously, and a favorable termination would have been reached earlier and more satisfactorily than by interference surgically. In this case there was no evidence whatever that the hæmorrhage had been due to ruptured tubal pregnancy.

In considering the question of dealing with tubal pregnancy before rupture occurs, the question which suggests itself is, Why submit the patient to a needless and dangerous operation when a safer and more rational course is open to us? It is urged that the necessity for operative interference in this stage is the danger attending rupture. The death of the fœtus, which can certainly be accomplished by electricity, removes this danger. Besides, it has been shown that the danger following rupture has been exaggerated; that extra-peritoneal rupture is comparatively harmless, and that the hæmorrhage following intra-peritoneal rupture is often moderate in amount, and not in itself sufficient to demand surgical interference. Of course you understand that I would not advocate withholding operation where the hæmorrhage is serious and uncontrollable.

It has been urged against electricity that its use may produce rupture, but this is manifestly unwarranted, since it has never occurred in any of the large number of cases where it has been employed. Likewise the objection that the dead fœtus may become a source of danger to the mother can be disregarded in the face of abundant evidence to the contrary. Theoretical objections of this nature will hardly weigh against statistical evidence. The truth must be admitted. No deaths have occurred which could be

attributed to the use of electricity in ectopic gestation and no evil results have followed. On the contrary, the health of the patients has been good for periods varying from one to eight years afterwards. The fatal cases reported, four in number, have been shown to be due to other causes, and in no way attributable to electricity.

On the other hand, the advocates of primary cœliotomy must admit that there is a mortality following this operation, even with expert operators, to say nothing of the risk of the occurrence of ventral hernia and the disfigurement of the abdominal scar, both of which are now being urged as advantages of vaginal hysterectomy as opposed to abdominal hysterectomy.

Upon the evidence presented, therefore, the use of electricity in unruptured tubal pregnancy, prior to three or three and a half months, is the most rational proceeding which we can adopt. In cases, also, where the diagnosis of tubal pregnancy is doubtful, electricity should also be used in preference to pursuing a waiting policy to have the diagnosis cleared up, since there is no condition likely to be mistaken for it, which could in the least be unfavorably influenced by its use.

PURGATIVE FOR CHILDREN.—We find the following prescription in the *Columbus Medical Journal*. It is said to be not only effective, but also pleasant to take—a characteristic not always found in useful remedies:

R.—Glycerine 3 i.
 Ol cinnamoni gtt. vi.
 Triture bene et adde
 Ol Ricini 3 i.
 M. et Sig. 3 i. pro re nata.

WHERE TO LOCATE.

An Address delivered before the Alumni Association of the University
College of Medicine, Richmond, Va., April 11, 1895.

BY BENJAMIN K. HAYS, M.D., Oxford, N. C.

It is with no little embarrassment that I stand before so learned a body of men.

To you I am indebted for all that I know pertaining to medicine, and I feel that I have nothing now to offer you to-night. Asking your patient consideration, I shall address myself chiefly to the young men present, and, as a member of the graduating class of 1894, discuss briefly a subject of the greatest importance to each one of us, namely, *Where shall we locate?*

At a meeting of an association of doctors which took place a few years ago in one of our southern cities, the President took, as the subject of his annual address "The Progress of Medicine in the South."

The paper which he read was a short one, yet to him who in his heart holds the love and reverence of this, our native land, next to that of Deity, it presents more food for thought than any other essay known to me.

I trust that every young man here to-night will get a copy of this paper and study it carefully, and even the older men, who have doubtless read it, might re-read it with renewed interest in the many valuable facts and suggestions which it offers.

In this paper it is clearly shown that no other territory of the same area has, in modern times, produced so many men of genius as the State of Virginia.

In every department of science and

art the South has produced her full share of laborers.

In many instances they have been found in the first rank, and in some, both in action and in meditation, they have trod paths where others could not follow, commanding both the admiration and gratitude of all humanity.

By no means least conspicuous among her sons, of whom she is so justly proud, have been her physicians.

Our text-book of surgery, in the chapter on Abdominal Surgery, observes that nearly all the progress that has been made in this department has been done by Americans.

The names of the men who have been chief in this are given, and three of the first four were southerners—Sims, of Alabama; Kinloch, of South Carolina, and the President of our own Alma Mater.

It neglected to mention the name of Ephraim McDowell, who was born in the State of Virginia in the year 1771, and at an early age moved with his parents to Kentucky. He began the study of medicine in the office of Dr. Humphries, of Staunton, and went directly thence to the University of Edinburgh. Upon his return to this country he located in the little town of Danville, Kentucky, where, in the year 1809, without assistants, without anæsthetics, without antisepsis or asepsis, without sympathy, threatened by an angry mob that had collected about his door, he performed successfully the

first ovariectomy known to the annals of surgery.

J. Marion Sims, the father of gynecology, was born and raised in South Carolina, and received his early medical education at Columbia. He located in the town of Montgomery, Alabama, nor did he remove to New York until after he was forty years of age, and had been doing his wonderful operation for vesico-vaginal fistula for more than four years, and even then the immediate cause of his move was the failure of his health.

Crawford W. Long, the discoverer of the anæsthetic properties of ether, who, in the year 1842, was the first surgeon to do an operation with his patient under the influence of an anæsthetic, was born, raised, lived and died in the State of Georgia, as did also Robert Battey, the eminent gynecologist, who devised the operation so familiar to you all, which bears his name.

T. Gaillard Thomas, the author of our text-book of gynecology, was born and raised in South Carolina, and graduated at the Charleston Medical College.

Dr. Joseph Price, the first abdominal operator in this country, was born and raised in Virginia.

In the death of Dr. Towles, last year, at the University, we lost an anatomist who stood second to none, and within the sound of my voice to-night there are men whose names are as much a part of medical history as any of those that I have called.

In studying the lives of these men, it is a noticeable fact that many of them moved away from the South either before or after they had made a success of medicine.

Let us pause for a moment and see if we can discover the cause for this.

Was it for increase of wealth? Was it for increase of reputation? Or was it that they desired larger fields in which to practice their chosen profession?

Some of them were doubtless actuated by one motive and others by another—perhaps the three reasons combined influenced many of them, but whatever the reasons were, it remains as a fact that a number of them went, and the question at once presents itself to us, Is it necessary to move away from the South in order to achieve success? Most emphatically, *No*. Would our chances to succeed be increased by moving away?

I do not for an instant believe that they would, nor do I believe it to be to our advantage, as a rule, early in life to leave our country or village homes to locate in a city.

A few years ago young men in search of homes were advised to go west. To-day the eye of the nation is on the South. We can scarcely take up a daily paper without seeing an account of some new industry started in the South.

There is new energy, new enterprise and new capital coming in this direction.

Here we belong to a dignified profession, working with one accord for the advancement of knowledge and the ultimate good of humanity.

In the west we would come in contact with quacks, charlatans and sharpers—men who have never attended a medical college, but are working simply to make money, and who will do anything for a dollar,

regardless of self-respect or the good of the patient.

If the object of your labor is to acquire wealth, let me say to those of you who have not already learned it by experiences, that you are in the wrong profession.

It is true that an increase of wealth usually comes with an increase of ability, but the demands upon a physician of reputation to do charity work, nay, the necessity of doing charity work in order to acquire a reputation, is so great that you will not be able to save money from your practice.

Dr. Joseph Price finds it exceedingly difficult to maintain his private hospital in Philadelphia.

The elegantly equipped hospitals of Thomas in New York, and of Hammond in Washington, proved financial failures. Charcot, one of the greatest men that this century has produced, died in Paris a little more than a year ago, and did not leave as much property as did an old friend of mine who had spent his life practising medicine among the pine woods of North Carolina.

The sight of a city physician, with his splendid horses, his handsome residence, his comfortable and easy office is well calculated to excite the envy of the student. He forgets that all this show is for effect, and that this seemingly fortunate man often wears a smiling face and a broad-cloth coat over a heavy heart and an empty pocket-book.

After some enquiry into the subject, I venture to assert that of the one hundred and forty doctors practising in the city of Richmond, less than four of them collect \$5,000 per year

above their current expenses, less than twenty collect \$5,000 at all, and one-third of them do not make a comfortable living. I do not speak this to the disparagement of the profession in this city, but merely to dispel an illusion of many students that every city doctor is a wealthy man.

Is it for increase of reputation that you desire to locate in a city?

If you are a man of genius, believing that you can do some one thing better than other men, if you have the patience to wait and the intelligence to work for years for nothing, and if you have the means of support during these years of waiting, perhaps you would do well to locate in a city; but even then I question if it would not be better to begin in a smaller place and move to a medical center after your ability has been clearly demonstrated.

Jenner was a country practitioner, and when he announced to the world the result of his wonderful discovery, it was after twenty years of private investigation and experiment. Robert Koch was a country doctor, and moved to a city only after his work had attracted the notice of the German government.

Sims, as we have seen, moved to New York at forty years of age—nay, time will not permit me even to mention the names of the many eminent physicians that have lived and died in the country.

A friend of mine who was practising medicine in a thriving North Carolina town, said to me that a week rarely passed in which he did not do some serious surgical operation. He was the leading man in that part of the State, and was consulted on all occasions. Urged by his wife, he moved

to a city, where he came in contact with surgeons of national reputation. For years he was comparatively an unknown man, and, although his superior ability finally won for him success in other departments of medicine, he was never known as a surgeon—which had been his youthful ambition.

The names of William J. Harris, Rawley Martin, Willie McGuire, Latham, L. Cato and Preston, in this State, and of O'Hagan, Whitehead, Wood, Cheatham, Tucker, Duffy, Cobb, Booth, Payne, Picôt, Young, Baker, Way, Taylor and others, in North Carolina, are familiar to us as men of ability and high standing in the profession, yet they all live and practise in country towns.

Is it for larger fields that you desire a city practice?

It is true the fields are there, but is not every inch of ground under cultivation?

Do you desire the copartnership of able and progressive men?

The boldness and self-reliance which you will acquire by working alone will

be worth more to you than the advice of the entire medical profession.

Do you desire to be progressive yourself?

A volume of one of our leading medical journals forms a valuable library within itself, and reaches you only a day or two after it is published.

Do you desire to make contributions to medical literature?

The journals are not only willing, but anxious, to publish all that is instructive, and your article will be read with the same interest, whether you write from Rag Town or from New York.

Finally, gentlemen, it seems to me that your relative standing in the profession should have some influence upon your choice of a location.

I know not how others may feel, but as for me, I would rather be the first doctor on a small island in the South Sea than to live in a city in comparative comfort, yet sacrifice my individuality in the struggling competition of a metropolis.

Selected Papers.

SOME ETIOLOGICAL TYPES OF HYSTERIA.

BY WILLIAM BROWNING, M.D.

The great variety of symptoms and cases that at present are classed under hysteria renders the subject a difficult one to handle in a brief space. Whether we accept the teachings of the Charcot

*Read before the Medical Society of the County of Kings, September 18, 1894.

school or not, the disorder is so common that it interests every practitioner and is often enough a disturbing element in every field of special work. Perhaps no less diversified are the factors that one time with another make up its etiology.

Malnutrition and exhaustion may in some form represent more nearly than anything else its physical basis, and yet these terms are very far from being synonymous with hysteria. While various specific diseases frequently have a causal relation, there is as yet, I believe, no germ recognized as pathognomonic of hysteria.

The very nature of the trouble, involving, as it often does, the mental status of the patient and others surrounding, renders the quest for an etiology doubly uncertain. Now and then, by happy accident or long opportunity, we get some insight.

In attempting to describe the causes it is well first to make some kind of a classification. That here used is simply one of convenience and can claim little absolute value, except as serving well for presentation of the points that I wish to offer.

My division is as follows:

- (1) Congenital predisposition.
- (2) Faulty training.
- (3) Later accidental causation.

In practice all three of course, in most cases, enter as components, though in variable degree. And yet sufficient simple cases can be found for illustration. The course of the disorder itself is also distinguished by considerable differences for each class.

1. Congenital Basis — A constitutional type.

In this form we cannot often trace the cause beyond finding antecedents that warrant the expectation of a neurotic make-up. To work out the etiology fully would require a familiar knowledge of several generations. In general it is a close parallel to that of several other neuroses.

But some characteristics of this type

are worth noting. Here, once hysterical, always so. And yet the subject may not have a decidedly hysterical mind, except in its deeper lines, and preferably not to an exasperating degree. It is the wearying succession of hysterical manifestations, first in one, then in another part of the body. Physical marks or stigmata are common. This is the degenerative form par excellence, and tends rather to the development of some organic nervous disease than to any single lasting hysterical trouble.

*Case.**—A woman of middle life, whose pedigree and personal career for many years it is possible to give with exceptional accuracy. In the family all kinds of nervous disorders were rife. Not further removed than cousins and aunts, the list includes angina pectoris, asthma, epilepsy and suicide, diabetes and a fondness for intoxicants. A sister suffered from weak heart and died suddenly. Even this does not exhaust the bad history, though it certainly leaves little to desire in this regard.

On the other hand, this lady received an admirable training from infancy up. A wise and gentle firmness guided her all the way. In accordance with this her more conscious desires and tastes and all her sentiments were of the best. So far as training could go, she had a healthy dislike for all things morbid, and could *e. g.* safely be trusted to care most uprightly for a child. Further, her life during its early and middle years, was fairly free from sharp trials, though not an idle one.

*Two of the cases given in this paper occurred in the practices respectively of Dr. Delatour and of Dr. McCorkle.

But back of all this was the constitutional tendency that could not be eradicated. Hysterical troubles in piquant variety followed one another with brief seasons of respite:—Globus, hysterical knee, asthma, spinal irritation, fainting spells and cardiac irregularities, anorexia and diarrhœas, chills, insomnia, vesical and again rectal irritability, hyperæsthesias and anæsthesias galore, followed one another in endless succession, except for relatively free intervals. Every form of narcotic and intoxicant was used, and in turn given up when discovered and advised against; but only in due time to be succeeded by a new one. Of course, any little accident or upset was bound to bring its sequel in the shape of an outbreak. There was little, if any, maliciousness, that so often wears out the medical attendant, for, in accordance with well-ingrained training, his advice was followed very closely—for the time, at least. Nor did there ever develop any of the more lasting hysterical conditions.

This case illustrates well the hereditary type pure and simple, a life of prolonged struggle against tendencies that are ineradicable, a healthy mind so far as acquirements and inclinations go, with an inherited physique continually asserting itself.

Moral treatment here is uncalled for, or, at most, is but a supportive measure. Nor can any system of Weir-Mitchellism really cure these patients, though it may benefit and certainly tide over passing outbreaks. Symptomatic treatment of the particular manifestation in hand is usually in order.

2. Faulty Rearing—The mental type.

This amounts to a family trouble in the sense that for its development the

individual alone does not suffice—two or more persons are requisite just as they are for a quarrel.

It presents some peculiarities and almost covers the field once popularly accredited to this disease: Such patients show preëminently the mental characteristics of hysteria. They are the indulgent, self-willed, scheming class. Malingering to a greater or less degree, or more often the magnifying of trifles into monuments, becomes so natural that they no longer know the difference between that and reality. To suffer horribly from nothings, to practice deception, play on the feelings of those next to them, and perchance fool or worry their physician, is the object of their lives. Pronounced neurotic stigmata (physical signs) are with them less common.

Yet they easily simulate disease, and this is the more dangerous, just as the subject is less tractable than other people. Their mental perversity holds them right on in the downward way, and on occasion they may carry the matter without a waver to a fatal termination. For it is not such an unusual thing to see these persons with no real trouble sink nearly to the point where life ceases, and when a false course is pursued they now and then pass on to death. Thus the form that at the start appeared to have the least basis in fact, of necessity tends to the worst end.

As to what is meant by improper bringing-up, most of us understand better than we can describe. The underlying principle is summed up in Solomon's "Spare the rod and spoil the child." Corporal punishment may not be necessary, but wise example and some instruction in purpose, self-

control and regard for our fellows, is imperative. There is no lack here of parental affection, or what we call sympathy, but a development of this to excess. All these hysterics have as a basis an inordinate craving for sympathy. This may have been inborn, but often is a matter of over-culture. Certainly per contra self-control can be cultivated to great purpose.

Perhaps, theoretically, the Puritan cult is still the best, and certainly whatever its drawbacks, its followers were well-spared this form of hysteria. But in this, as in his other ways, the physician naturally prefers a more eclectic course than any arbitrary system, and believes thus, in the long run, to accomplish better things.

So-called sympathy may assume many forms. One of the most deleterious is purely physical and may be worth mentioning in some detail, as it tends to the development of other neurcses as well as hysteria. It is the fondling or "pawing over" habit that some parents have with their children. When most developed it may, as Dr. Shaw suggests to me, become a disease in itself—the seniors seeming to crave it also. The parent is ever holding, patting, rubbing, stroking, embracing and in all ways of touch petting the child, and this may be kept up until long after maturity. The outcome is an excessive development of the sensory sphere. It may, of course, play with the greatest force on the sexual side, though it is not that to which I refer, but to the erethism that amounts to a dominating sensory hunger, seeking satisfaction in any accessible way. Less often it leads to perversion in the way of an abnormal dislike for everything of the kind.

Such family-habits are, of course, so private that but exceptionally does even the physician get a full insight or realize their import. The extent to which this is carried in some families is to me at least astounding. Any advisory suggestion in regard to it is but too easily considered a thrust at their unusually happy family-life.

Of course the only successful treatment of this form of hysteria is the moral, whether under the guise of a rest-cure, or, if not too well established, by breaking up the surroundings in which it is flourishing, or by whatever other immediate means. It is always a difficult matter and requires a maximum of tact and patience.

Case.—Young man of nineteen years. No neurosis known in the family. One brother died of phthisis. The father died when the boy was three years old, but left the family amply endowed with worldly means. He had a "devoted mother," of the kind that humors every whim and fancy and will go anywhere or do anything that a child can suggest. By the time he was ten years old he became irregular in school work. He might keep along for some weeks or months, then feel it was too hard and be allowed to drop out. For a time a private tutor was provided. But the boy came to feel that continuous study was too much for him. In those days he complained some of headaches. He was never much of a hand to play with other boys, as he would soon feel tired and be allowed to give up.

In contrast to this it has been noticed that summers when away in the country he was always active, well and free from complaints. But on returning to town his old status would soon

come back. His more immediate troubles dated from the previous summer when he was hurried back to town by a slight irritation of the neck of the bladder. A mass of preputial smegma was removed, and for a few weeks all went well. Then, for the purpose of benefiting his supposed poor health, a trip to California was undertaken. There he was circumcised and an assumed stricture cut. He had never had gonorrhœa, and his physician here had previously passed a No. 34 sound. So that it was simply a spasmodic stricture, if, in fact, anything. Of course he was better for a few weeks. Then he had an attack of so-called grip and his eyes began to trouble him. He describes an irregular waviness of vision before both eyes, called by him "jiggling," and this has continued off and on since. Eminent ophthalmic surgeons in various cities have carefully examined his eyes, but always with negative result. His urethral trouble still returns frequently. It is usually relieved for the time by the passage of a sound. For this complaint he has been to specialists in several cities and often returns to his physician here. When this symptom sets in—so-called spells—he becomes almost deliriously frantic, gets wrought up to a high tension, passes large quantities of clear urine of low gravity (sometimes down to 1,004), and may talk of suicide. Of course those nearest to him consider his trouble alarmingly serious and are fully subservient. These attacks, he says, are brought on by worrying about himself. If his attention is gained to anything outside of himself they disappear. It is clear that on several occasions suggestion from medical

men has brought on or increased his symptoms.

Physically he is a strong, well-built, robust-looking chap. Careful and repeated examinations failed to discover much abnormal. A coated tongue, some pupillary hippus, a pulse easily and rapidly varying twenty or more beats, and occasional twitching around one or the other eye was about all. General sensation good in all varieties. No tremor at first examination, but this he had developed fairly for the next occasion.

It is almost dignifying his condition to call it hysteria. Clearly it is attributable to his circumstances and pampering in every way.

3. Immediate or Late Causation—The more purely physical form of hysteria.

Exhaustion of any kind may act as a cause; the various toxæmias, prolonged sickness, shocks mental or material, bad habits in eating, drinking and personal care, excesses, accidents, losses of blood, etc.

These are cases where they may be single attacks and permanent recovery. One after another may be brought on and chronic invalidism may result. Here neither the signs of a neurotic make-up nor a specially hysterical cast of mind are evident. The attack may at the moment seem severe, but it is a dissociated matter. It does not at first appear to be of an hysterical nature, but closer observation serves to decide its character, or, to borrow a term, that it is an hysterical equivalent.

Case.—Young woman, by profession a trained nurse. No nervous troubles acknowledged in her personal or family history. Has suffered some from rheumatism since scarlet fever six years

ago. Last year, according to good observers, she had two attacks of appendicitis, recovering, however, without operation. Then followed an attack of perihepatitis.

She is a bright, attractive, rather pale girl, of fair complexion and a bit restless. Evidently she fears that her case is serious, possibly a stroke. Yet neither to casual observation nor in the cognizance of the medical men who have known her longer, is there anything hysterical about her. Nor was there any apparent motive, such as we often find. She has always been an over-sleeper (nine to ten hours or more) and has been somewhat taxed by a recent case.

The present trouble began ten days before I saw her, and had already mended slightly. On waking one morning, she found the left hand numb as though asleep. Despite simple efforts to relieve, it extended up the arm that day. At the same time she felt "terribly fatigued." By the next day she realized when anything came in contact with the left foot that it gave the same peculiar sensation. Soon the whole corresponding half of the head, especially the left ear and half of the tongue, including the whole circumference of the mouth, became involved. As she was dizzy when up, heavy-headed, and had a feeling of plunging forwards when going down stairs, she has since remained in bed. She has been blue and cold all over, the numb sensation increasing when her parts get warm.

P. 84 and fairly good so long as she remains recumbent. Tongue much coated, comes out straight. Cold sense found impaired on dorsum of left hand, though only to the wrist. Sensation as of something between the

fingers. Complains of a drawn-tight feeling in left palm and fingers and on chest-wall outwards from apex-beat. Pain sense reduced generally on the left side. Wrist reflexes on both sides increased in extent and force. Both knee-jerks are over-strong, at times even starting the arms to extend at the elbows. It may be worth noting that, because of an old injury to the right hand she is partially left-handed. Grip r. 54, l. 52½.

Right pupil said always to have been wider than left. Diplopia since present attack, but no single muscle proves to be affected. It is chiefly present in extreme lateral positions, either to right or left, when slight nystagmus appears. No sectoral defect of vision, though some contraction of field in each eye. No spinal tenderness.

However honest her complaints, they certainly were much colored by the knowledge that she had gained as a nurse, and to such an extent as to require close examination before coarser organic trouble could be excluded.

The practical sum of the case is, that the girl was not equal to the busy, trying life of a nurse. She was simply exhausted or tired out, and when this was helped by rest and restoratives, the trouble promptly abated. In less than a month from the onset she was well and away on a vacation.

In this form the forced-feeding and rest-cure work wonders, so-called moral discipline playing therapeutically an unimportant rôle.

In conclusion, I repeat that the three types given represent causes that usually combine in any particular case. By giving them in this way, as separate entities, I have hoped best to summarize the etiology of hysteria.—*The Brooklyn Med. Jour.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

DR. BILLINGS TO BE RETIRED.

The *New York Medical Journal* thus refers to the retirement of Dr. Billings from the public service:

“We learn that Deputy Surgeon-General John S. Billings, of the army, has requested that his name be placed on the retired list, and that in October that distinguished officer will leave the Army Medical Museum, of which he is curator, and the Library of the Surgeon-General's Office, of which he is librarian, and these magnificent institutions, that have been made what they are largely by his ability and zeal, will know him no longer. Thus goes the last of the trio—Woodward, Otis and Billings, that gave the army medical corps world-wide reputation.

“Before the date he has selected for his retirement he hopes to complete his work on the final volume of the *Index-*

Catalogue, a work that has made the medical profession of the world debtors to the United States Government, to the Army Medical Department, and, last, and by no means least, to John Shaw Billings. In the *British Medical Journal* for April 20th, Mr. Jas. Blake Bailey, the librarian of the Royal College of Surgeons of England, pays tribute to Dr. Billings by advising librarians and authors to adopt as standard abbreviations those used by Dr. Billings in the *Index-Catalogue of the Surgeon-General's Library*. The system, he says, “was well thought out and has thoroughly stood the test of use.” A catalogue of the museum also has been completed under Dr. Billings's direction, and we hope it may soon be published.

“In seeking official retirement Dr. Billings does not propose to give up work, as he has accepted the chair of hygiene in the University of Pennsyl-

vania, and his energy will be likely to find congenial employment in the duties connected with it."

The immense volumes of the *Index-Catalogue* which, have, from time to time, been noticed in these pages, will stand as lasting memorials to the untiring energy and great ability of Dr. Billings. We heartily congratulate the Institution that has succeeded in getting him upon its staff of instructors.

DEATH AFTER ANTITOXIN.

A death has been reported from Brooklyn after an injection of antitoxine. Whether the death is a case of *post hoc* or *propter hoc* has not been satisfactorily determined. The preparation used was from an acknowledged authority in Germany and was furnished by one of the most reputable drug houses of this country. The physician, Dr. Kortright, in whose practice the case occurred, is well known among his confrères as a painstaking and conscientious physician. Whatever the cause of death in Bertha Valentine's case, it cannot check the enthusiasm that the cold statistics of reliable observers have created. Even should the remedy be proven to be dangerous in some cases, that would not be sufficient cause for its discontinuance. Anæsthetics cause a death occasionally and *always* jeopardize the life of the patient, but the danger from the disease is so much greater, that we do not hesitate to place the patient in that condition between life and death and hold him there for hours. The evidence of the curing property of antitoxine is accumulating so rapidly and from such varied sources that it will require more adverse crit-

icism and unfortunate incidents than have yet occurred to destroy the faith of the profession.

EFFECTS OF OPIUM EATING.

The trade in opium in India is a source of much revenue to Great Britain, but whether that fact influenced the report made by the Royal commission we are not able to say. There were more than 470 witnesses examined, of whom 152 were called, it is claimed, at the desire of the Anti-Opium Society. The report was practically unanimous and stated that "the temperate use of opium in India should be viewed in the same light as the temperate use of alcohol in England. Opium is harmful, harmless, or even beneficial, according to the measure and discretion with which it is used." The question arises, Can a man be temperate in the use of opium? The tendency is to increase the dose day by day, the tolerance of the system to the drug requiring larger and larger doses. Then this report is directly contrary to the assertions of medical missionaries in opium-eating countries, who are in daily contact with opium-eaters for years, and have excellent opportunity for studying its effects.

AMERICAN MEDICAL ASSOCIATION.—The forty-sixth annual meeting of the American Medical Association, held in Baltimore May 7th to 10th, was probably the most satisfactory ever held. The attendance was very large, but hospitable Baltimore found room and entertainment for all. We will give our readers the benefit of abstracts of the more interesting papers (and there were many of them) from time to time,

Reviews and Book Notices.

Diseases of the Ear. A Text-Book for Practitioners and Students of Medicine. By Edward Bradford Dench, Ph.B., M.D., Professor of Diseases of the Ear in Bellevue Hospital Medical College, etc. With eight colored plates and one hundred and fifty-two illustrations in the text. Octavo; 645 pages. D. Appleton & Co., New York; 1894.

In the preparation of this volume the author has had regard both for the general practitioner and the special surgeon. After a chapter devoted to the anatomy and another to the physiology of the ear, a chapter is devoted to physical examination. As the volume is intended, in a large degree, for the use of the general practitioner, who is not familiar with examinations of the ear, the author has preferred to err on the side of prolixity rather than conciseness. It is a fault with many works by specialists upon special subjects that the reader is given credit for more information on the subject than can be expected of the majority of general practitioners. The author goes into the subject with thoroughness and clearness. The technique of examination is fully considered and full instruction given in the use of the various instruments used in making an examination.

In contrast with most works upon otology the author emphasizes the importance of a thorough functional examination and has devoted an entire chapter to this subject. This chapter completes Section I.

Section II. is divided into four parts, which treat respectively of diseases of the auricle, of the external auditory meatus, of the middle ear and of the

mastoid process, comprising the conducting apparatus.

Section III. devoted to the Surgery of the Conducting Apparatus, is divided into three chapters—Middle-Ear Operations; The Mastoid Operation, and The Surgical Treatment of the Intra-cranial Complications of Aural Suppuration. This Section is based upon the author's personal experience, and is mainly intended, doubtless, for the specialist.

Section IV. treats of diseases of the perceptive mechanism, and will prove more interesting to the specialist than to the general practitioner, while Section V. discusses Complicating Aural Affections, such as those complicating the acute infectious diseases, those dependent upon functional nervous disorders, and chronic visceral conditions.

Taken all in all, the work strikes us as the most useful upon this branch for the general practitioner that has come to our notice.

Cod-Liver Oil and Chemistry.

By F. Peckel Moller, Ph.D. Peter Moller, London. And can be had from W. H. Schieffelin & Co., New York.

A large quarto volume of about 500 pages, beautifully printed and bound. The Introduction describes the country and the people of Norway, the various points in cod-fishing, etc. Part I. treats of Hydrocarbons; Part II. of the Derivatives of Hydrocarbons Hydrogen Compounds, Alcohols and Phenols; Part III., Oxygen Compounds—Ethers; Part IV., Aldehydes and Ketones; Part V., Carbohydrates

and Glucocydes; Part VI., Oxides; IX., Sulphur Compounds; Part X., Part VII., Mutual Combinations of Nitrogen Compounds; Part XI., Proteids, Ptomaines, Leucomaines and Part VIII., Hologen Compounds; Part Ferments; Part XII., Atoms.

Abstracts.

THE SERUM TREATMENT OF DIPHTHERIA.—Mya (*Lo Sperimentale*, February 21, 1895) discusses some of the drawbacks to the serum treatment. Cutaneous manifestations have been unanimously attributed to the treatment; they have rarely been hemorrhagic, and occasionally with general disturbance. A very few cases of articular complications have been noted, which pursued a rapid course, but were not serious. Some have attributed with apparently insufficient reason, renal, cardiac and nervous complications to the serum. The author's observations extend to over 50 cases, and the inconveniences caused by the treatment have been insignificant. In four cases there was a scarlatiniform eruption. The resemblance in one case to scarlet fever led to the isolation of the patient, but the subsequent course showed the true nature of the case. A rapid and evanescent urticaria was seen in two cases. Sometimes the temperature was raised and a general disturbance was noted. This, of course, is no contraindication to the treatment. Most authors have attributed the eruptions to the horse serum. The serum does not possess any demonstrable action upon the red blood cells. The author would attribute the cutaneous manifestations to a vasomo-

tor change or to an alteration in the lymphatic circulation. Fever must be due to exaggerated personal susceptibility. Dose has no effect in producing the cutaneous complications. The author does not think it possible to attribute either albuminuria or the myocardial and nervous manifestations to the serum. Among the 50 cases there was diphtheritic paralysis in four of five cases, and in one sudden death from cardiac complications; but in days before the serum treatment the author saw more cases of this kind. He concludes that the serum should be used early and abundantly in severe cases. It must be recognized that since the introduction of the serum treatment cases hitherto looked upon as beyond help have recovered, and especially in infants.—Santucci and Mucci (*Lo Sperimentale*, February 11, 1895,) first remark upon the technique of tracheotomy. They have treated 13 cases with serum supplied by Roux and Behring. The diagnosis was confirmed bacteriologically in six cases. The cases were all injected except one, immediately after admission. In only two cases was urticaria noted. Among 13 cases three died, representing a mortality of 23 per cent., whereas in seven cases otherwise treated during the same period four died. The authors

think that the results speak in favor of the serum treatment. They also are of opinion that tracheotomy increases the gravity of the case by opening the way to the absorption of infective products, but intubation is only practised in Mya's clinic in infants under one year of age, in whom recovery after tracheotomy has not been noted.—Silva (*Gaz. d. Osped.*, March 2, 1895,) has treated 17 cases with Behring's serum, details of which are given. The youngest patient was ten months, the eldest 15 years old. Bacteriological examination was made in 15 cases, and in 14 Loeffler's bacillus was found. Of the 17 cases three died, but one of these was obviously not diphtheria, and perhaps another should also be excluded; the mortality would then be 7.14 per cent. Among the recoveries were some very severe cases with complications. In six cases there were symptoms of laryngeal stenosis. Sometimes the serum was injected into the veins, and then half the quantity only was used. No signs of local irritation were produced. Enlargement of the submaxillary glands was noted, and the membrane began to detach itself spontaneously. Where albuminuria or nephritis was present the serum did not aggravate it. The general condition of the patient was improved. Recovery soon took place after the injection—in from five to eleven days. Paralysis was twice seen. There was a suppurative parotitis in one case. The author concludes that the results of the treatment were satisfactory.—*Times and Register.*

CERTAIN PELVIC ABSCESSSES, WITH A NEW APPARATUS FOR THEIR SUCCESSFUL DRAINAGE AND CURE.—(Schuyler

C. Graves, M.D., *Medical News.*) A short time ago every collection of pus in the female pelvic cavity, excluding such as might be associated with disease of the bony structures, was supposed to be caused by pelvic cellulitis, or pelvic peritonitis; so-called perimetritis, or parametritis. The discovery of the pus-tube came, and to-day there are many who believe that every form of pelvic suppuration in women, with the exception noted, is tubal, ovarian or tubo-ovarian. Time has proved that the former classification was wrong; but it does not take time to prove that the latter, also, is wrong.

The fact nevertheless remains that parametric abscesses without tubal connection do exist, and present indications for treatment radically differing from those of a purely tubal or ovarian origin.

The differential diagnosis, I admit, is difficult, and, at times, impossible. The history of the case, gonorrhœal or puerperal, together with the *tactus eruditus* of an experienced observer, often throws light upon the subject. The most reliable, though by no means pathognomonic, indication of a pelvic abscess that is neither tubal nor ovarian in character is the crowding of the uterus laterally, or particularly, upward and forward against the symphysis.

There is a principle in the practice of pelvic surgery bearing upon the treatment of circumscribed collections of pus that ought never to be ignored; it is this: Any inflammatory mass susceptible of enucleation should be approached through the abdominal cavity, and any inflammatory mass *not* susceptible of enucleation should *not* be approached through the abdominal

cavity. Therefore every form of extra-tubo-ovarian disease, suppurative in character, either primary or secondary, except when reason and common-sense contraindicate (and, with a view to possible temporary results, some forms of intra-tubo-ovarian suppuration, as when acute or subacute symptoms are found and vaginal bulging is noticed), should be approached through the vagina.

It is not necessary for me to enumerate the different phases of thought that led to the conclusions that followed my experience in these cases. Suffice it to say that such thought has been transmuted into gutta-percha (vulcanized dental rubber is as good), and a separable horseshoe drain-tube is herewith presented.*

Its advantages are the following:

1. It is light.



2. It is non-oxidizable, and, practically, non-corrodable.

3. It is separable and easily placed and replaced.

4. It cannot escape from the cavity of the abscess.

5. It can do no "prodding," as is the case, frequently, with the *white* rubber tubing, and which, in an abscess, soon becomes as hard as bone.

6. It is incompressible, and hence, unlike *any* form of rubber tubing, the latter, under similar circumstances, collapsing, and thus failing to drain.

7. It furnishes double drainage—drainage at two different points.

8. It can serve for irritating purposes as well as for drainage.

9. It can be kept clean, and, if thought necessary, can be removed and cleansed occasionally.

10. It can be worn indefinitely.

11. It causes no pain or discomfort.

12. It maintains no patency, because

of its incompressibility, and in this respect is superior to gauze packing, under the use of which openings tend to close.

13. It permits of painless dressings, which is an impossibility when gauze drainage is employed.

In short, the apparatus seems to fulfil the indications, inasmuch as it is a drainage-tube that drains. I speak from experience.

When in the treatment of these abscesses the tube is to be placed in position, two incisions, about three-quarters of an inch apart are made at the proper points, and a heavy silk ligature or corresponding silver wire sufficiently long is passed from one to the other through the abscess-sac and brought down to a position where it can be manipulated.

*The cut represents one-half of the instrument, but the complete picture may readily be imagined by the reader.

Each half of the apparatus is now threaded upon the ligature or wire (in case silk is employed wire should be used as a leader), a knot made and drawn, whereupon, with a little manipulation, the instrument will naturally and readily adjust itself, forming a complete horseshoe, the convexity of which—and this is the only portion supplied with fenestræ—will project into the abscess-cavity, the “heels” remaining out of sight and away from pressure within the vulva.

This natural adjustment is much facilitated by the fact that the “heads” of the apparatus are practically solid, plane surfaces, and are not arranged for the fitting of one part into the other.

A small loop of the ligature or wire should be left at the base for the purpose of easy manipulation and to maintain coincidence between the long axis of the instrument and that of the vagina.

By proceeding after this fashion in properly selected cases the surgeon will, in my opinion, obtain gratifying results and will acquire the same in accordance with sound surgical principles and with the least risk to the lives of his patients.

ON SCARLATINA-LIKE RASHES IN CHILDREN.—(Dr. Henry Ashby, *Med. Chronicle*.) There is a strong family likeness between the various zymotic diseases. Various kinds of staphylococci seem to have a suitable soil prepared for their development in the body through the influence of the specific organisms of the infectious diseases, and the presence of the staphylococci may account for the similarity of some of the symptoms common to all. Varicelli mimics small-

pox, roetheln mimics measles. Some epidemics of influenza simulate diphtheria, being accompanied by a membranous sore-throat. The similarity in symptoms between various zymotic diseases is apt to give rise to much perplexity in diagnosis, and in no case more so than when a rash of the scarlatina type is present. The rash of scarlet fever is diffuse and punctiform, covering trunk, back and limbs; its mildest form remains visible twenty-four to forty-eight hours. A red rash, seen by candle-light and gone by daylight, is not scarlatina. Though a scarlatinal rash may appear to be erythematous, the red points corresponding to the hair follicles are of a deeper color than the surrounding skin. Though diffuse on the trunk, it may be patchy on the limbs. Full diagnosis is often very difficult. Scarlet fever may be practically feverless, and the temperature not more than 99.5° or 100° for a couple of evenings; the fauces may be only doubtfully reddened. A well-marked red-rash may appear in course of other diseases, as pneumonia, or after an operation, or during suppuration of some sort. The association of a red rash with certain epidemics of influenza has been noted by many others besides the author, but every case in which there is a red, punctiform, diffuse rash should be isolated and treated as scarlatina, unless it can be proved otherwise.

The scarlatinal form of rubella (epidemic roseola) most closely resembles mild scarlatina, just as, at other times, it resembles measles. Whether these two forms of rubella are distinct diseases or types of the same is still an open question. The author does not think that the scarlatiniform type can

always be distinguished from scarlet fever, as Clement Dukes believes. The great difficulty is in isolated cases. Where an epidemic exists the long incubation of rubella—eighteen to twenty-one days—distinguishes it from the short incubation period of scarlet fever, namely, two to three days. So-called surgical scarlatina is usually true scarlatina in a surgical sense; but where there is an excessive amount of suppuration there may be a red rash due to septicemia. Such a rash may occur in empyema cases and sometimes in diphtheria. There may at times be a second rash in scarlet fever cases, where there is much suppuration about the fauces and neck, but all these are a dusker red than the true scarlatina rash. The only drug eruption which is likely to be mistaken for scarlet fever is the erythematous eruption that sometimes follows the administration of belladonna or its alkaloid. The rash of antipyrine is more of the measles or nettle rash type. An erythematous rash may occur in mild or severe ptomainic poisoning, accompanied by gastro-intestinal disturbance and vomiting and diarrhoea, but in the child this combination should always suggest scarlet fever in an early stage. Ashby does not lay much stress upon desquamation as a symptom of recent scarlet fever, unless there be other evidence from the history or sequelæ, such as nephritis. "Peeling" may follow other diseases, as typhoid-pneumonia or influenza, specially that of the thick skin upon the hands and feet. In fine, a diagnosis in any case can only be arrived at by collecting all the evidence available, and not by giving one piece of evidence a fictitious importance.—*Kansas Med. Jour.*

NEW METHOD OF PREPARING CAT-GUT.—Dr. Cunningham, before the New York Academy of Medicine, described the following method for preparing catgut:

Since the discovery that a solution of formalin, 1-5000, is capable of preventing the development of micro-organisms in beef-juice, many observers have demonstrated its potency as a germicide. It must be used in a very dilute form, otherwise it produces a peculiar form of necrosis. Formalin unites with gelatin and albumin to form insoluble compounds. Commercial, surgical catgut is loosely wound on a glass spool and soaked for two days in equal parts of alcohol and ether, then rinsed in alcohol for a few moments and removed to a small jar having a tightly-fitting cover. This jar contains a mixture of equal parts of formalin, alcohol and boiled distilled water. After two days the catgut may be removed and washed several times in alcohol, or, preferably, boiled in normal salt solution. It is then ready for use, and is to be preserved in alcohol. The catgut does not become stiff or brittle, and even after boiling for a considerable time it does not disintegrate. By this method of boiling the irritating formalin is very thoroughly removed, and the catgut rendered thoroughly aseptic. Other normal substances, such as bone drains and rings, may be treated in this way with advantage, provided not too early absorption is required. Unless a considerable percentage of water is present in the formalin mixture, the catgut will be rendered brittle. The proportion of the other ingredients is not so important. Experiments on animals have shown that in the skin these cat-

gut sutures are absorbed in from ten to twelve days, and that about the seventh day they begin to show softening. Provided there is not too much alcohol in the mixture, the desired chemical change takes place in the course of a few hours.

The chairman, Dr. Curtis: This method seems to me exceedingly useful, for it enables the surgeon to readily prepare his own catgut, and in a short time. There can be no question as to the sterility of the catgut, for it has been used with success in experimental brain and peritoneal surgery.

APPENDICULAR ABSCESS BURST INTO ABDOMINAL CAVITY DURING EXAMINATION; OPERATION; RECOVERY.—(Jas. Daniel, *Brit. Med. Jour.*) M. W., aged 27, first came under my care about ten months ago. She complained of a severe pain in the right iliac region, accompanied with vomiting, constipation and fever. It had commenced about three days previous and was gradually getting worse. Purgatives, instead of relieving, had rather increased the pain.

On examination there was a distinct circumscribed swelling, very painful, but no distinct center of softening that would lead me to suspect suppuration, and she had no rigors. I therefore suggested the application of six leeches and hot fomentations, and gave her a saline mixture with large doses of belladonna internally and a one-fourth grain of morphine hypodermically. The next morning she was much better, the bowels had acted copiously, and in three or four days she appeared quite well again. Since then she has had several other attacks, coming on after intervals of three or

four weeks. After the fourth attack I suggested operation, which she declined, and consulted another practitioner. The last attack had commenced while she was away at Blackpool, and had lasted for three weeks without any material improvement. Her doctor told her she had better get home, as he had done all he could do, and that it might require an operation.

On April 7th, the day after her return from Blackpool, I was called in to see her; she was then suffering severe pain in the right iliac region, constipation, rigors, hectic and great emaciation. The swelling which I first saw had considerably increased in size, and was distinctly fluctuating; and, while examining it, to be sure of my diagnosis, I felt it suddenly give way under my fingers; the patient felt it also and fainted. After coming round she said she felt relieved. I explained to her friends the nature of the case, and they sanctioned my operating. On opening the abdomen, the pus welled up through the incision as I made it. The whole of the intestine was soaked in pus. I washed out the abdomen freely, first with warm water and then with a saline solution, sponged out the abscess cavity, and dusted well with iodoform. The cecum and colon were matted together, and the appendix could not be found. I made a counter-opening over the abscess, and put in a drainage-tube, and dressed antiseptically. The same evening she expressed herself as feeling very comfortable; there had been no vomiting, temperature 102°, pulse 108. Next morning I removed the dressing from over the drainage-tube, and soaked out of the tube about two teaspoonfuls of fluid with pus. On the second day

there was scarcely any fluid in the tube, and the patient was still feeling better; temperature was 100°, pulse 96. On the third day there was no fluid in the tube, which felt firmly fixed on account of the cavity contracting, so I removed it and dressed antiseptically. The wound continued to discharge for three or four days, and eventually healed up. The abdominal incision never gave any trouble. The woman is now wearing a belt, and is gaining flesh rapidly.

I think this case illustrates another instance of the dangers of delay, and, had it not been for my prompt action, the case might have turned out much more seriously.—*Mathews' Med. Quar.*

INJECTION TREATMENT OF HERNIA; WITH FORMULA OF FLUID.—(Walling, *Med. and Surg. Reporter*.) To Heaton and Warren, of Boston, belongs the credit of bringing this treatment into prominence, but it was not until it was considered from a scientific basis that it became really successful. Chemistry has come to our aid in this matter. Substances that are in themselves harmful, by combining them with other substances, or by arranging their elements differently, become useful therapeutic agents. Reducible hernia may be quickly and easily cured without danger, with little loss of comfort to the patient, and no loss of time; the essentials being a deft hand, a proper fluid and a trocar and canula syringe. The technique is as follows: Place the patient on the operating-table, reduce the protrusion, if out, wash the parts well with some antiseptic fluid, invaginate the scrotum with the index-finger, and locate the external ring; inject into the skin at

this point five minims or more of a 5 p. c. solution of cocaine, to which has been added one drop of a 1 p. c. solution of nitro-glycerine. Have the hernial syringe filled with fluid, displace the air, wipe off the drop of fluid which may appear at the needle's end, and carefully note how far the canula must be turned off in order to entirely cover the needle point. Allow three minutes for the cocaine to take effect, and, having drawn back the canula, exposing the needle spear, thrust the instrument through the skin and fascia at the point of the cocaine injection. Push the instrument well into the external ring, carefully avoiding the cord. Change the instrument to the other hand, and, again having invaginated the scrotum, be sure that the needle has entered the ring. Then screw down the canula until it covers the point of the needle, and, dipping down with the instrument, pass the canula by gentle manipulations up the canal to the inner ring. In doing this bear in mind that the inguinal canal is from one and one-half to two inches in length, lying nearly parallel with Poupart's ligament, and about one-half inch above it.

Having reached the inner ring, carefully and slowly inject from 3 to 5 minims of the fluid, a minim at a time; wait one or two minutes, slightly withdraw the piston of the syringe in order to empty the needle, and withdraw the instrument. Gently massage the parts to evenly distribute fluid. Cover the puncture with an aseptic collodion. There will be a more or less burning or smarting sensation experienced by the patient, but by lying quietly for a few moments it will pass off. It may return for a short time

when the truss is adjusted, which must be done before the patient rises.

He must be instructed to take the truss off only after he has lain down at night, and put it on before arising in the morning.

Repeat the operation every five or seven days, according to the amount of the fluid used and the degree of the reaction. There will be some soreness for a day or two, and the patient must be told this. A certain amount of healthy inflammation must be set up and maintained for a sufficient length of time, in order to effect a cure. From six to twelve injections usually suffice. The older the patient the longer the time required. A well-fitting truss must be adjusted and worn before operating for a few days, in order to see if it keeps the hernia well reduced.

The fee for treatment ranges from \$25 to \$100, or more. A double rupture should be double pay—one-half in advance. For fitting a truss a charge of \$10 in advance always.

Any physician may soon become expert in the operation; there is absolutely no danger if a proper instrument and fluid be used.

Ruptures in children are sometimes cured by a single injection.

The following is the composition of the fluid recommended:

- B.—Complex salts of aldehyde, 30 p. c.
 Iodo-ethylate of guaiacol, 30 p. c.
 Sulpho-tannate of zinc . 20 p. c.
 Free guaiacol 5 p. c.
 Beechwood creasote . . 15 p. c.

These rare and delicate chemicals are separately prepared, then carefully combined and dissolved in an antiseptic medium, in strict conformity with

their respective affinities and dosage. Injection dose, 3 to 5 minims.

Rinse out the syringe with alcohol, never with water, as it is decomposed by water.—*Mathews' Med. Quar.*

DIPHThERITIC OPTHALMIA TREATED BY APPLICATIONS OF CRUDE PETROLEUM.—(Vian, *Recueil d'Ophthalmologie*, No. 8, 1894.) Dr. Vian details three cases of diphtheritic ophthalmia of different degrees of intensity treated by means of crude petroleum oil. The first case was one of simple ophthalmia neonatorum in a child a few days old, in which the corneæ were quite clear when first seen. The usual treatment was followed, swabbing with weak nitrate of silver solution twice a day and keeping the eyes clean with warm boric acid lotion applied hourly. After four days treatment the purulent discharge had much diminished, and the little patient seemed to be on the high road to recovery, when suddenly the character of the disease underwent a change and the palpebral conjunctivæ became covered with greyish false membranes. For this condition cauterization with lemon juice four times a day, and perchloride of mercury lotion was employed, but with this treatment the patient improved but little. Four days after this the right cornea became hazy, and in forty-eight hours became necrosed. Startled by the impotence of ordinary measures, and casting round for some untried germicide, Dr. Vian concluded to try crude petroleum oil, and commenced by applying it to the everted lids with a camel-hair pencil twice a day. On the second or third application the false membrane came away easily, leaving a clean surface beneath, which was carefully

sponged with pledgets of sterilized linen, between the applications of the petroleum the eyes were gently irrigated with boric acid lotion. At the end of five days, satisfactory progress having been made, the number of applications was increased to three and four a day, and after three weeks treatment he was able to report a cure; a slight haziness of the left cornea clearing up in a fortnight under application of yellow oxide of mercury ointment.

The second case was that of a child, aged three, whose lids were much infiltrated, the palpebral surface covered by dense grey membrane of very tough consistency, secreting pus scantily. Both corneæ were clear. He immediately commenced the petroleum treatment twice a day and boric acid lotion hourly. After a lapse of five days the cornea became slightly hazy, thereupon he increased the frequency of the application of the oil, until at the end of eight days he was using it every two hours to the exclusion of any other application. The infiltrated condition of the lids resisted all treat-

ment for about three weeks; the corneæ became more and more opaque until they assumed a greyish brown color; but, in spite of all, they maintained their resistance, and presented not the slightest trace of softening erosion. With a view of clearing up the corneæ, yellow oxide ointment was used daily, and on the forty-sixth day of treatment, the false membranes having disappeared and the lids become normal, the application of petroleum was discontinued. The daily use of the yellow ointment for three or four months resulted in the corneæ clearing up and restoration of vision.

The third case was a slighter one, also in a child of three, where there was a croupal membrane present, but no lid infiltration, nor was there any corneal affection during the whole course of the disease. In this case thirty days of treatment sufficed to obtain full restoration to health. These three cases appear to be pretty conclusive as to the effect of this treatment in three varieties of membranous conjunctivitis, or three different stages of its evolution.—*Med. Chron.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From April 18th, 1895, to May 1, 1895:

Ebert, Rudolph G., Assistant Surgeon, is granted leave of absence for two months, to take effect on being relieved from duty at Fort Huachuca, Arizona.

By direction of the President the retirement from active service, April 18th, 1895, of Col. Joseph R. Smith, Assistant Surgeon General, is announced.

Kendall, Capt. Wm. P., is granted leave of absence for six months, with permission to go beyond sea, to take effect upon his relief from duty at Fort Columbus, New York Harbor.

THE NAVY.

For the week ending May 4, 1895:

Stitt, E. R., P. A. Surgeon, detached from U. S. S. "Chicago" and to Nicaragua Canal Board inspection of work on the Isthmus.

Beyer, H. G., Surgeon, detached from Naval Academy and to the "Monongahela."

Atlee, L. W., P. A. Surgeon, de-

tached from the New York Hospital and to the "Richmond."

Edgar, J. M., P. A. Surgeon, from the "Richmond" and to the School Ship "Saratoga."

Means, V. C. B., P. A. Surgeon, from the "Saratoga" and to the New York Hospital.

Boyd, Robert, Assistant Surgeon, from Philadelphia Hospital and to the "Monongahela."

Morris, Lewis, Assistant Surgeon, ordered to the Philadelphia Naval Hospital.

MARINE HOSPITAL SERVICE.

For the 15 days ending April 30th, 1895:

Fessenden, C. S. D., Surgeon, detailed for duty on board examination of officers of revenue cutter service, April 17, 1895.

Hamilton, J. B., Surgeon, granted leave of absence for 12 days, April 20, 1895.

Stoner, G. W., Surgeon, detailed to represent service at meeting American Medical Association, April 25th, 1895.

Mead, F. W., Surgeon, detailed as chairman board for physical examination officers revenue cutter service, April 17, 1895.

Banks, C. E., P. A. Surgeon, when relieved to report at Bureau for duty as Chief of Purveying Division, April 24, 1895. Granted leave of absence 14 days, April 29th, 1895.

Williams, L. L., P. A. Surgeon, detailed for duty on board for examination of officers revenue cutter service, April 17th, 1895.

McIntosh, W., P. A. Surgeon, detailed for duty on board for examination of officers revenue cutter service, April 17, 1895.

Kinyoun, J. J., P. A. Surgeon, detailed to represent service at meeting American Medical Association, April 25th, 1895.

Woodward, R. M., P. A. Surgeon, to proceed to Ashtabula, Ohio, as Inspector, April 19th, 1895.

Wertebaker, C. P., P. A. Surgeon, granted leave of absence for ten days, April 16, 1895.

Brown, B. W., P. A. Surgeon, detailed as recorder board for physical examination officers revenue cutter service, April 17, 1895. Granted leave of absence for 20 days, April 23, 1895.

Stewart, W. J. S., Assistant Surgeon, to rejoin Station at Washington, D. C., April 20th, 1895.

Prochazka, Emil, Assistant Surgeon, to proceed to Evansville, Ind., for temporary duty, April 29th, 1895.

Thomas, A. R., Assistant Surgeon, granted leave of absence for thirty days, April 19, 1895.

Promotions.

Bache, Lieut. Col. Dallas, Deputy Surgeon General, to be Assistant Surgeon General, with the rank of Colonel, April 18, 1895.

Huntington, Major David L., Surgeon, to be Deputy Surgeon General, with the rank of Lieut. Colonel, April 18th, 1895.

Shannon, Capt. Wm. C., Assistant Surgeon, to be Surgeon, with the rank of Major, April 18th, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

We learn that Dr. Albert Anderson, of Wilson, N. C., is prepared to make bacteriological examinations for the

diagnosis of cases of diphtheria. The doctor has recently been working with Dr. Kinyoun, in the Laboratory at

Washington, and it is a source of much satisfaction to know that some one in the State is prepared and qualified to do this work. His fee for each examination is only \$5.00, and should in all cases accompany the specimen.

The death is announced of Dr. Jno. M. Byron, who was Assistant Health Officer of New York during the cholera epidemic of 1892-3. Dr. Byron was a prominent bacteriologist.

Dr. James E. Reeves was sued for libel by the Amick Chemical Co. for applying to them such terms as quack, fraud, etc. One case came to trial and was decided for the defendant. This implies that the Doctor told the truth. We understand the capital stock of the concern has been decreased from \$300,000 to \$60,000.

The practice of medicine in Japan has progressed wonderfully in the past few years. This was made conspicuous by the excellent field service during the recent war. Well equipped local hospitals have been opened in most of the Japanese towns, many of them in connection with the Christian missions.

At the recent meeting of the American Medical Association, the report of the Trustees showed the receipts from all sources, for the past eleven months, was \$36,245.08, and the expenditures \$30,884.82. The receipts from the *Journal* were \$16,572.54, and the expenses \$29,344.97—cost of the *Journal* to the Association, \$12,772.43. The discussion that has been going on in some journals relative to the nature of the advertisements in the *Journal*, has evidently had its effect upon the Trus-

tees, for in their report they say: "During the year no advertisements of secret remedies have been accepted that were not accompanied by a formula, but to still further comply with what appears to be the desire of a large number of those interested in the highest success of the *Journal*, the editor, with the termination of the present contracts, has been instructed to accept no advertisements of medicinal preparations the proprietors of which do not give a formula containing names and quantity of each composing ingredient, to be inserted as a part of the advertisement."

Already the heat in the great cities is claiming its victims. There were reported two prostrations in New York and one in Brooklyn on the 10th of May with a maximum temperature of 89°.

The Illinois College of Pharmacy, Chicago, has added to its Faculty two strong men of national reputation—Mr. Henry Kraemer, well known to the pharmacists of this country as the Reporter on Progress of Pharmacy of the American Pharmaceutical Association, and Mr. John B. Nagelvoort, whose name is familiar to the readers of current pharmaceutical and chemical literature. These gentlemen are both apothecaries and distinguished for their ability and their active participation in the scientific work of their profession.

The one-hundred and forty-fourth anniversary of the founding of the Pennsylvania Hospital was celebrated recently by throwing open to the public view three new structures, on Spruce street between Eighth and

Ninth streets, consisting of a central building (erected as a memorial to Wistar Morris by his widow and his daughter) and two spacious wings. The new buildings can accommodate 140 patients for surgical treatment; and in construction, in sanitary arrangements and in general equipment they are models of the most advanced ideas in hospital-building—a fact which does honor to the progressive spirit of the management.

A tooth-pulling match is announced between two dentists. It will probably end in a draw.

The next meeting of the A. M. A. will be held in Atlanta, Ga., the first Tuesday in May, 1896. There was a sharp discussion in the selection of the place of meeting, many preferring Washington, as next year will be the centennial anniversary of the discovery of vaccination. The following officers were selected: *President*—Beverly Cole, of California; *Vice-Presidents*—Dr. Chisolm, of Maryland; Dr. La-grange, of Texas; Dr. Clarke, of Mississippi, and Dr. Satterwhite, of Virginia; *Secretary*—Dr. Woodbury of Philadelphia; *Treasurer*—Dr. H. P. Newman, of Chicago; *Address on Medicine*, by Dr. Osler, of Baltimore; *Address on Surgery*, by Dr. Senn, of Chicago; *Address on State Medicine*, by Dr. Rohé, of Baltimore.

The grand decoration has been bestowed upon William R. Warner & Co. by the Belgian Government. The decoration is of the most beautiful, in gold and white enamel, taking the form of a Maltese cross, on the center of which on a blue ground is the inscription. A wreath in blue and gold

surmounts the cross, the whole being topped by a ribbon, tied in a bow, of the national colors. The design is a very pretty tribute for the excellence of the preparations manufactured by this house.

At a meeting of the Faculty of the Northwestern University Woman's Medical School, resolutions were unanimously adopted and ordered to be placed before the Illinois State Board of Health: That, whereas on three occasions within the past three years, the Illinois State Board of Health has licensed to practice medicine in this State, students who have not properly qualified themselves for such duties, and whose incompetence has compelled us to withhold the degree of Doctor of Medicine; that the State Board be requested hereafter to make its examinations so rigid that persons incompetent to obtain the Degree of Doctor of Medicine from first class medical colleges, cannot obtain license to practice from the Illinois State Board of Health; that it be urged to do all in its power to secure a modification of the State law, so that the privilege of examination for license to practice in this State can only be obtained by graduates of recognized medical schools in good standing.

Dr. J. M. Toner, one of the most prominent physicians in Washington, reached his seventieth birthday April 30th. A Washington paper gives an account of a handsome breakfast given by him on this occasion to the gentlemen who were members of the Medical Association when he became associated with it. Breakfast was served at 11:30 o'clock, and from 1 to 3 o'clock there was a reception, to which

all the members of the Medical Association were bidden, and no one else. It was the occasion for a general turnout of the profession, who took advantage of the opportunity to extend cordial greetings and congratulations to one who is so well liked by all. A handsome luncheon was spread with all the delicacies of the season, and in a corner of one of the parlors was a huge bowl of punch. The guests stopped in the corner long enough to

drink their host's health and occasionally returned to do it over again. The rooms were beautifully decorated with flowers. Besides these there were scores of letters and notes of congratulation from this city and elsewhere. A large number of the members of the Association called during the afternoon to pay their respects, and the occasion will probably be remembered by Dr. Toner as one of the most gratifying in his long career.

Reading Notices.

ARISTOL IN OPHTHALMIC PRACTICE.

—Diseases of the eye from a promising field for the employment of Aristol both by reason of its antiseptic and cicatrisant properties, its ability to arrest suppuration and act as a protective covering over wounded surfaces. Some time ago Dr. Wallace (*Therapeutic Gazette*) reported a number of cases of interstitial keratitis in which after subsidence of acute symptoms Aristol proved very effective in clearing up the derbis of the inflammation and removing the irritation and congestion of the conjunctiva and cornea. In most instances a remarkably rapid improvement in vision occurred after insufflation of the remedy into the eyes. Corneal ulcers both of traumatic and infectious character have also been successfully treated with Aristol by Bourgovis, Viginis and Hegg and according to the two latter authors it has an especially advantageous action in the scrofulous phlyctenular keratitis of children. It was usually employed in the form of the powder dusted on with a brush, while Meurer recommends its use in a 10 per cent ointment in blephaeitis and phlyctenular kerato-conjunctivitis. Recently Dr. Heuse of Elberfeld (*Therap. Monatsh.* Feb. '95) has detailed

his extensive experience with Aristol in eye affections. He writes as follows:

"In cases of indolent ulcers of the cornea with purulent base it is occasionally an admirable remedy, causing suppuration of the slough where other remedies have proven ineffective. Aristol was used in the form of a powder, applied thickly to the ulcer with a brush, and the eye was kept closed for a short time after its application. After two days the base of the ulcer had become perfectly cleansed. Aristol, however, does not take part in the reparative process, and after separation of the slough other remedies should be resorted to. In form of a 5 per cent ointment Aristol proved very serviceable in ulcerated blebharitis and on account of its freedom from irritation it possesses some advantages over the yellow oxide of mercury. Of course care must be taken to epilate the diseased ciliae from the ulcerated places. I have also secured excellent results from a 5 per cent ointment in the treatment of obstinate cases of recurring hordeola, (The ointment being rubbed into the ciliae at night.) Aristol, therefore, is a remedy as equal in efficiency as the celebrated precipitate and superior to the latter in suitable cases."

NORTH CAROLINA MEDICAL JOURNAL.

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No. II.

Original Communications.

PRESIDENT'S ADDRESS.

BY JOHN H. TUCKER, M.D., Henderson, N. C.

Gentlemen of the Medical Society of the State of North Carolina :

Permit me to renew my acknowledgments for the honor which was conferred by your partiality in calling me to preside over the deliberations of this old and historic Society, an honor far beyond my merits or deserts, and when I consider the large number of able, learned and progressive physicians who constitute its membership, I am all the more impressed with a sense of my unworthiness for the distinction conferred and the responsibility imposed; but coming as an expression of your choice and a manifestation of your confidence and esteem, I count it the greatest honor of my life, for which I desire to offer you the thanks of a grateful and sincere heart. It is with sentiments of genuine pleasure we accept the privileges and opportunities so graciously afforded us for our meeting here to-day in this beautiful city of Goldsboro, a city so justly noted for the culture, refinement, public spirit and hospitality of her citizens, a city made especially dear to this Society as the home of so many of her true and loyal sons who, by years of active service in her behalf, have made themselves honored and loved by her members. Where else could the North Carolina Medical Society, or, for that matter, any medical society, find an environment more suited to its taste; and where else could our work, the advancement of scientific medicine and the promotion of its usefulness receive greater inspiration than at the home of these worthy gentlemen and accomplished physicians?

The year just passed has not been specially prolific in furnishing new or exciting topics upon which an annual message for the edification of this

*Read before the North Carolina Medical Society, May 14, 1895.

distinguished body can be based, nor has recent scientific advances made medical discovery so phenomenal as to justify an infringement upon the work especially set aside for the several sections of this Society.

I may well, therefore, fear that the brief remarks which I may have the honor to deliver may smack of the "thrice-told tale" and leave but little impress upon your minds.

The last meeting of this Society, at Greensboro, has gone into our annals as one of the most brilliant of our series. The attendance was large, showing an increase over former years, notwithstanding the financial stringency of the times, and the proceedings were marked by harmony, unanimity of sentiment and fraternal feelings. The papers offered by the several sections were of a high standard, many of them being productions of real scientific value.

The feature which was especially pleasing to many of the older members, and the one which I desire to enlarge upon and the value of which specially emphasize on this occasion, was the increased number of highly interesting and instructive clinical reports furnished by members from different sections of the State, and which were so collated as to make prominent the anxieties, perplexities, difficulties, failures and successes of the several reporters to the degree of bringing the individual members of the craft in pretty close touch one with the other.

Our North Carolina doctor, from the very nature of his environment, is a typical bed-side observer; he is rich in expedients, methods and devices, and the profession at home and abroad have a right to share in his experience and to profit by his labors. Unlike his more favored city confrère, he has none of the aids furnished by the modern laboratory to smooth out diagnostic wrinkles, or the trained hospital assistants to make easy an hazardous surgical venture, but, solitary and alone, he is often called upon to solve medical problems and to perform dangerous and difficult surgical feats, which would truly be appalling to the prolific brain and skilful hand of the most renowned specialist of the day; that his work is well and successfully done, meeting the high demands of his profession and the still higher demands of the humanities that surround him, the people of every hamlet, village and town in this grand old State stand ready to proclaim his virtues and maintain his cause; truly "the poor, maimed, halt and blind" have received the healing influence of his touch; that his work is worthy of publication and permanent registration, he begs you to consult the report made at our Raleigh meeting, the only attempt yet made to collect and tabulate the work of North Carolina's surgeons in civil practice, and short and incomplete as the author declares the report to be, it records an amount of surgical work which for brilliancy of conception, skill in execution and successful results, will stand all the tests for favorable comparison with any other section in this great country.

No wonder, in the discussion of this admirable resumé of North Carolina's surgeons, a gentleman imbued with sentiments of lofty love of his State and her people and a just pride in the achievements of his brothers, should declare that the "result only emphasized the fact that there is no longer a need for our people to go beyond the limits of the State for surgical operations." Many of the older members recall with pleasure and pride the day when our clinical work was in the lead, the brilliant contributions made by the late Drs. Manson, Norcum, Satchwell, Faison, Murphy, the Haywoods, Thomas, Wood, and others, men of intellectual candor and vigor, who were wont to bring from the riches of their experience cases illustrating their failures as well as their successes, and in the spirit of the conscientious enquirer for truth, would invite the fullest and freest discussion, and, if need be, the severest criticisms as regards diagnostic and therapeutic methods.

Let us have a revival of this work in order that this Society may receive the lessons of instruction and wisdom which the clinical experience of our own physicians and surgeons can so abundantly impart, and to that end I respectfully recommend that additional time shall be allotted to the two sections on the "Practice of Medicine" and on "Surgery," and that it shall be made an especial part of the work of the chairmen of these sections to secure, as far as may be practicable, such reports for the discussion of the Society.

A comparison of cases and an interchange of views by the profession leads to more careful collection and registration of facts, induces closer methods of observation and establishes a wider range of thought, the effect of which is to eradicate petty jealousy and narrow prejudice and in their place to substitute "generous rivalry and personal friendships," the aggregate of which is to unify and ennoble our calling and to bring incalculable benefit to the thoughtful and well poised physician. Our profession has won its grandest and most lasting triumphs through such agencies, and, despite the rapid and almost marvellous acquisition of knowledge in the several branches, the end is not yet, nor will it come until the misty chapter over which etiology presides is forced to disclose many of her hitherto unfathomed mysteries, until by our more philosophical method of studying physiology, pathology and chemistry, and the more recent science of bacteriology, together with the knowledge gained from vivisection and along other lines of experimental research, we shall have collected scientific data of sufficient strength to free medicine from the thralldom of ignorance, superstition, cheap empiricism and fatuitous guessing which for centuries has hampered its progress and restricted its usefulness.

Medicine lays no claim to deductive science—we do not start from axiomatic principles and reason to conclusions. It is highly inductive. Our facts are collected (the greater the number the more certain the escape from error) we arrange them in orderly sequence and from such data we evolve

principles which are being constantly refined and strengthened by the marvellous activities in the profession and the ready application of discovery and invention from every department of human endeavor which can be made useful for the cure of diseases or the promotion of human health. "To-day," says a writer of international fame, . . . "we view its votaries engaged, some searching for new facts and new materials, some studying new applications and better use of facts and materials already known, . . . some are searching the field, the forest, the earth and air, both for more knowledge concerning the causes of diseases and for additional remedial agents; some are in laboratories with crucible, test-glass and microscope, analyzing every morbid product and every remedial agent, separating the active principles from the crude materials and demonstrating their action upon living animals, while far the greater number are at the bedside of the sick and wounded, applying the knowledge gained by all other workers to the relief of human suffering. A more active, earnest, ceaseless and beneficent field is not open to your view in any other direction or occupied by any other profession or class of men."

The system of collective investigation, experimental research and true inductive reasoning has added a great store to our knowledge of the laws of life; pathological deductions have been made clear, and our therapeutic agencies have been placed upon a more rational and scientific plane—further and more enduring progress along these lines impose a grave responsibility upon our organized medical and other scientific bodies.

Time-honored tenets, theoretical dogmas and ingenious doctrines will not down at the mere bidding—they hold to their dynasty with boldness, and complete dethronement is accomplished only by demonstrable truths, logically deduced, and in no field can this work be more effective than through the medium of scientific discussion in the medical bodies of this and other countries. The duties of the hour forbid further generalization and suggest that I shall speak to you of matters of more immediate concern and graver import to the profession and people of North Carolina, and to that end I desire to ask your attention, briefly, to a consideration of some of the obligations resting upon our profession, and especially upon this Society, in the line of the prevention of diseases. I trust no apology will be deemed necessary by this body of progressive physicians for suggesting methods by which their work may be diminished rather than increased. Industrial corps, labor unions, farmers alliances and other like organizations view with grave suspicion the action of a member who would by any method hinder or lessen the business activities of their orders, but modern medicine under the new era, the medicine in whose service we are enlisted and at whose shrine we bow, speaks in no uncertain tone when the physician is sent forth to prevent disease, lessen sickness and prolong human life, and no priesthood proclaims a purer gospel than the simple and unselfish creed of him who wards off and

prevents the disease for the cure of which he would receive fame, fortune and power.

The late Professor Flint, the great teacher, the profound author and America's greatest physician of his day, in a posthumous address prepared for the British Medical Association of 1886, says: "The medical profession shall have reached an high ideal position when the physician, guided by his knowledge of diagnosis, the natural history of diseases and existing therapeutic resources may, with neither self-distrust nor the distrust of others, treat an acute disease by hygienic measures without potent medication. When this time comes a system of practice which assumes to substitute medical dynamics for the *Vix Medicatrix Nature* will have been added to the list of by-gone medical delusions."

Again, about the same time, the late Professor Samuel D. Gross, America's great surgeon, and the peer of any surgeon in the world, in his last public address, spoken at the dedication of the McDowell monument, says: "The great question of the day is not this operation or that, not ovariectomy, or lithotomy, or an hip-joint amputation, which has reflected so much glory on American medicine, but preventive medicine—the hygiene of our persons, our dwellings, our streets, in a word, our surroundings, whatever and wherever they may be, whether in city, town, hamlet or country.

"This is the great problem of the day, the question which you, as the rising generation of physicians, should urge in season and out of season upon the attention of your fellow-citizens, the question which, above and beyond all others, should engage your most serious thought and elicit your most earnest coöperation."

In full touch with these sentiments, which have come to us as a blessed heritage from men who have brought renown upon modern medicine—one representing the medical and the other the surgical thought of the day, and both crystallizing their views in an appeal for hygienic and sanitary reform and a more rigid observance of all that may be embraced in the generic term of preventive medicine, it is not surprising that this Society, under the leadership of the late Dr. Thomas F. Wood and a few faithful coadjutors, should have organized a Board of Health and sent it upon the mission of preventing disease, collecting vital statistics and teaching the people the benefits and blessings which come from a wise observance of sanitary rules and regulations.

It would be interesting to study the history of this Board, its struggle for existence, difficulties of securing public confidence, and still greater difficulty in disseminating sanitary teachings among the people, and that, too, under the most brilliant leadership which any service could possibly command, suffice it to say it has grown from a mere committee of this Society into an active, useful and indispensable part of our State governmental system, and is to-day, in its work of preventing disease, lessening sickness and prolong-

ing human life, accomplishing a service which entitles it to the admiration of this Society and the confidence and support of the people of the State. This Board comes to us in conjoint session for conference, for encouragement and support, and the question which naturally arises is, Are we giving it the support which its relation towards us and the important interests it has in hand demands, and if not, why not?

Let us for a moment consider the question of vaccination. For many years past the worthy Secretary of the Board of Health has reported to this Society an increased indifference on the part of the profession and the people to this great preventive measure, and in a recent session he announces from the floor of this Society that, in his belief, nothing short of a visitation of an epidemic of this dread disease, small-pox, in our borders will arouse the people to the sense of their danger and impress upon them the necessity for vaccination. We have no statistical data upon which to base an opinion, but a conservative estimate would leave more than one-half of our people, ages and classes considered, without the benefit of this great prophylaxis, and when we consider the increasing number of epidemics of small-pox occurring in the more populous eastern States, the increased facilities for travel and the changed habits of our people with regard to travel, many thousands going and returning from the great centres of population, thereby subjecting themselves to the danger of contracting a disease which, once set on foot in our State, will grow into a conflagration more appalling, if possible, and more difficult of suppression than a prairie fire in mid-summer, we may well counsel together about matters of prevention.

This body is too technical for any exhaustive arguments in defence of the utility of vaccination, but in view of the existing apathy and the urgent necessities of the situation, I trust you will excuse some references along these lines. Medical and sanitary scientists teach to-day that small-pox is absolutely within the power of man to repress, and that a death from this disease shows criminal carelessness and should be charged neither to the ignorance of man nor the providence of God.

Standard medical authorities and current medical literature teem with indisputable proof that when compulsory vaccination is enforced, small-pox enjoys no lease of life and is scarcely known in mortality reckonings. In epidemics of small-pox it is a well-ascertained fact that the mortality in non-vaccinal cases is from 40 to 51 per cent., whereas in post-vaccinal cases it is only about 4 per cent., and yet, in spite of these convincing proofs, the anti-vaccinists, whose opposition is founded on ignorance and prejudice and whose arguments are supported by factitious statistics and misleading statements, flaunting their unallowed colors in the very face of our profession, assert that we suppress the truth as regards the frightful mortality and enormous sickness which attends vaccination, its complications and sequelæ. It is amazing that in this intelligent age there should be people in North Carolina who are

imbued with these sentiments! Physicians everywhere, of large experience, have seen vaccinal complications, but very few have seen death or permanent injury result from them, and none have ever seen "frightful mortality" and enormous sickness result.

Dr. Quine, in a recent address before the Medical Society of Illinois on this subject, shows that in the city of Chicago there were one million of vaccinations with only two deaths which could possibly be ascribed to the complications of vaccination, furnishing a mortality too trifling to give the opposition any standing in a count of physicians. Again, the Germans to whom our profession is so largely indebted for having directed our study of infectious and contagious diseases along rational lines, in an official report to the German government, in 1890, report 2,485,483 vaccinations without a single death.

But I will not tire you further with exposition along this line. The consensus of medical and sanitary opinion, in which this Society will heartily join, is that vaccination and re-vaccination affords absolute protection against small-pox, and when properly done, with pure vaccine lymph, there is positively no danger of death, serious sickness nor hurtful consequence from the operation, its complications or sequelæ.

In the sparsely populated condition of our State it would be impracticable to enforce compulsory vaccination, the law would be cumbrous, expensive and difficult of execution; but we can and should secure the enactment of a law making it compulsory in our public schools; indeed, we might go a step farther, and make a certificate of vaccination a prerequisite to entrance in any school whose doors are opened for public patronage, and we as physicians who are charged with the sacred duty of maintaining the health and promoting the well-being of the people, should resort more frequently to vaccination in our own private practice, remembering that the best "starting point" is at the physician's own household; through these combined agencies, in a few years, we may hope to have the larger portion of our people brought under the influence of this great prophylactic measure, and thus aid our Board in the accomplishment of a work which has occasioned so much anxiety.

The subject of tuberculosis is to-day one of the gravest with which the physician and sanitarian has to deal, and the necessity of lowering its frightful mortality by methods of prevention was never more keenly felt by our profession—a disease which, we are told, is responsible for one-seventh of the deaths from all causes in the world, furnishing an annual mortality greater than from all the infectious and contagious diseases combined, not excepting yellow fever and cholera, and rapidly increasing in our own State, especially among the working classes, will naturally engage your most serious consideration and elicit your most earnest efforts in the line of its prevention.

Since the publication of Dr. Robert Koch's classical paper, in 1882, announcing the discovery of the tubercle bacillus and demonstrating its generic relation to disease, there has existed but little doubt in the minds of sanitary scientists that this disease should be properly grouped with the infectious and contagious class and brought under the surveillance of our health authorities, in order that aggressive measures may be instituted for its restriction. In a recent publication one of the most distinguished of our American sanitarians briefly summarizes his views as follows:

1. Tuberculosis is a communicable disease and is distinctly preventible.
2. It is acquired by direct transmission of the tubercle bacillus from the sick to the well, usually by means of the dried and pulverized sputum floating as dust in the air.
3. It can be largely prevented by simple and easily applied means of cleanliness and disinfection.

It is upon these propositions that the sanitary and health authorities of the country invoke the aid of our profession in devising means and instituting measures for restricting and lessening the frightful ravages of tuberculosis, and the mandates of professional honor and duty alike suggest a ready and willing response to the appeal.

The remedy is largely educational—the people must be taught, by publication, by lectures, by conference, public and private, in season and out of season, the true character of the disease, the danger of contagion, the source of infection, the method of disinfection, and, above all, the urgent need for rigid hygienic and sanitary treatment, personal and domiciliary, and in no way can this work be made more effective than through the medium of the faithful and conscientious family physician.

These questions are worthy of your most serious consideration, for they involve grave responsibilities and are important enough to command the best executive ability and the profoundest medical and sanitary knowledge.

The methods instituted by our health authorities and now generally practiced in our villages and towns for the restriction of scarlet fever and diphtheria, namely, notification, isolation and disinfection, together with more intelligent, persistent and systematic efforts at disinfection in typhoid fever and other zymotic diseases, have been the means of preventing an enormous amount of sickness and suffering, and doubtless of saving innumerable lives.

The more intelligent of our people everywhere are beginning to realize the value of this service, and the time seems most auspicious for carrying forward our standards, and by public addresses, lectures, sanitary conferences and other agencies to create in the public mind a sentiment commensurate with the great interests involved—at least, as educated and progressive physicians, let us demonstrate to the people the necessity for, and the value of, public hygiene and sanitation, and that as a science it is something more than a mere "jumble of unproved" hypotheses. Lord Derby, years ago, declared

that "no sanitary improvement worth the name will be effective, whatever acts you pass or whatever powers you confer on public officers, unless you create an intelligent interest in the matter among the people at large;" and this eminent authority further says: "With a low average of public health, you will have a low average of public morality and probably also of public (or national) intellect." The physical, moral intellectual and material well-being of all classes of our people will be promoted by an enlightened administration of public hygiene, and in no other direction will an expenditure of labor, time and money give returns so immediate and of such immeasurable value.

If we were to apply the money test as to the value of each citizen who dies from a preventible disease, as suggested by Dr. Farr and corroborated by other sanitarians, it would constitute a sum so large that capitalists would be startled. It is enough to say that the amount saved to the State, as thus demonstrated, would be so enormous that the most visionary dreams of speculation can offer nothing so alluring; but this side of the question belongs to the political economist, and not to the physician.

We promise as the result of our labors diminished sickness, improved health, increased longevity and the resultant blessings of happy and cheerful homes for the people of our State.

Statisticians tell us that the duration of human life has been advanced from twenty-eight and below to forty-one years under the ordinary workings of sanitary laws, and under more enlightened measures, that if mortality can be reduced to fifteen per thousand and maintained at that point, the rate will be advanced to fifty-four years; and if we can reach eight per thousand, as suggested by the distinguished Dr. Richardson in his beautiful picture of the ideal city of Hygeia, with her broad streets, lovely courts and faultless drains, her extended parks, silvery lakes and pure water, with a population "moral, cultured and intelligent," we will carry the rate up towards ninety. Hygeia is a city of the Millenium and these hopes are purely ideal and not within the range of present possibilities, but they are none the less valuable as pointers to the modern sanitist. Who can be more sensible of the value of sunshine, of fresh air, of pure water, of wholesome food, of effective drainage, of cleanliness and of thorough disinfection than the educated physician, and who can better impart this knowledge to those who anxiously look to him for guidance in matters affecting their health, happiness and well-being?

As members of a noble profession, and especially as members of this great and useful Society, let us carry forward the beneficent work; the soil is fertile and needs but the touch of the master hand to give forth an abundant harvest of good works.

In conclusion, my distinguished predecessor, in his able and instructive message, dealt so specifically with the needs and changes necessary for the

improvement of the work of this Society, and these valuable suggestions are still fresh in your minds, that I need say but little along this line.

I desire, however, to urge the importance of the recommendation for a change in our Constitution so as to give the Society a "Recorder and Librarian," whose office shall be at our capital city, and who shall be the lawful custodian of the Society's rolls, books, periodicals, instruments, pathological, anatomical and other specimens which may be donated or otherwise acquired," and to perform such other duties as may from time to time be imposed by the Society.

The necessity for this office is urgent, and it is believed, under proper administration, it may be the nucleus from which a great and valuable medical library will grow, and, under enlightened legislation of the future, we may, with some reason, hope to see established and maintained in connection with it, largely by State aid, a modern laboratory for biological and pathological work, and thus supply a want which is so grievously felt by the profession in the State. I desire, also, to direct your attention to the valuable service rendered this Society, the profession at large, and the general public, by our Committee on Legislation, supplemented by aid of the President and Secretary of the Board of Health and other prominent members of the Society before the committees of the last memorable Legislature. But for the active, persistent and intelligent efforts of this committee, our medical and health laws would have been greatly weakened, if not entirely abrogated, as a trifling tribute to the rapacious demands of the new apostles of political freedom.

I respectfully recommend that this, or a similar committee, shall be appointed, and that it shall be made the duty of the Committee on Nomination to form the committee.

The Committee on Necrology will furnish the names of our departed brethren, and later in the session will seek occasion to offer loving tributes to their memory. The list is not a large one, but it contains the names of several prominent and useful members, one of whom, Dr. Robert Lee Payne, of Lexington, achieved the highest honors of this Society, and was ever active and ready in extending its influence and promoting its usefulness.

They have all measured out honorable and valuable lives in their several spheres, and in passing from the scenes of active, busy strife of this life to the life beyond, they are, under the bidding of the Great Physician, "now resting from their labors."

Society Reports.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Forty-Second Annual Meeting, held in Goldsboro, May 14, 15, and 16, 1895.

FIRST DAY—MORNING SESSION.

The Forty-Second Annual Meeting of the Medical Society of the State of North Carolina was convened in the City of Goldsboro on the 14th day of May, 1895, in the Opera House.

The Society was called to order at 10 o'clock by Dr. W. H. H. Cobb, chairman Local Committee of Arrangements, Dr. John H. Tucker, of Henderson, the President, occupying the Chair, and Dr. Robert D. Jewett, of Wilmington, being Secretary.

Prayer was offered by the Rev. Mr. McQueen.

The Mayor of Goldsboro welcomed the Society in a brief, but most cordial speech.

Dr. W. J. Jones delivered the following

ADDRESS OF WELCOME.

Mr. President and Gentlemen of the Medical Society of North Carolina :

The presence of your learned and distinguished body in our city emphasizes an event of which we feel proud, and to which in after years memory will revert with pleasurable reminiscence. In your annual pilgrimage, after the cycle of many years, you once again appear at our gates, and in behalf of the local fraternity our excellent Lord Mayor and Board of City Councilmen, with warm hearts and ready hands we extend a hearty greeting and cordial welcome to the hospitalities and privileges of your chosen Mecca, which we trust to make enjoyable during your temporary stay in our midst.

Coming, as you do, from the various sections of our grand old Commonwealth—some from her rock-ribbed mountains, upon whose majestic peaks are daily coronations by mingled cloud and corruscating sun-rays—others from near the blue waters of the Atlantic, whose rippling billows awake with their splashing laughter the sunbeams of morning—and others again from our own beloved plains. And while unable to excite your admiration and awe with enchanting scenery of picturesqueness and grandeur afforded by mountain and sea, still they come with radiant smiles and joyous hearts born of the inspiration of nature around them; and would point you to the Goddess of Plenty, whose cornucopia is ever replenished by this propitious climate and prolific soil; also, as typical of their aspirations, they have in their forests

the tall and majestic pine, that sways its lofty head when fretted by the gusts of heaven and bids defiance to the storm-clouds, and yet bows complacently at the rage of an impotent foe—even political—as in Goldsboro and the county of Wayne. Yes, gentlemen, during your short respite from laborious professional work, we trust that while in our city your enjoyment will be commensurate with our esteem and appreciation of your distinguished body.

Mr. President, the scientific guild over which you have the exalted honor to preside on this occasion (it being your forty-second annual session) is comparatively but a small contingent of the grand army of co-laborers in the ever progressive and widening domain of medical science. With the population of seventy millions in the United States of America we have one hundred and five thousand, one hundred and eighty-three practicing physicians, and we hope, sir, that the physicians and surgeons of your learned body will not in the future, as in the past, be content, with their God-given talents, to merely swell the overflowing mediocrity of their profession, but achieve and maintain the highest standard of professional excellence. By earnest and persistent determination to surmount all obstacles, ever keeping your eyes toward the summit of professional eminence, where, inscribed in living light, are the immortal names of the illustrious members of your profession, you may in this way hope to reach the goal or upper rungs in the ladder by which alone you may expect to enter the Temple of Fame, possessing wealth and happiness, and in the "yielding stone of time" have your fondest dreams engraved.

Within the last two decades the advancement in the science and art of your ennobling profession has been marvellous indeed, and should cause us most reverently to proclaim our gratitude to a merciful God for the discovery and utilization of inexhaustible resources which are of incalculable benefit to suffering humanity.

While it is true that your progress has been phenomenal, and that clinical demonstration of advanced methods in surgery and rational medicine has enabled you to hold in leash the terrible scourges that ever and anon are wont to invade and decimate the bright and beautiful habitations of man, yet you must confess not infrequently your utter inability to successfully resist or capture the invading foe, "and with sad entreaty invoke the mystic elixir vitæ" of a Paracellus or the heavenly electrified Pool of Bethesda, by the touch of whose agitated waters the demon of disease is instantly expelled.

Mr. President, the grave responsibility resting upon our profession makes it no sinecure; its labors are various and constant, its toils unremitting, its cares unceasing.

The physician is expected to meet the grim monster, "break the jaws of death and pluck the spoil out of his teeth." His ear is ever attentive to entreaty, and within his bosom are concealed, sacred and inviolable, the disclosures of the suffering and dying. Success may elate him, as conquest flushes the victor.

Honors are lavished upon the brave soldiers who, in the struggle with the foe, have covered themselves with glory and returned victorious from the field of battle, but how much more brilliant is the achievement of those who overwhelm disease, the common enemy of mankind, whose victims are numbered by the millions. Another paramount duty of the physician as a public benefactor I will suggest by submitting the postulate that if the stability and maintainance of good and permanent government depends upon the virtue and intelligence of its people, it is imperatively necessary to foster and secure the health, strength and physical development of succeeding generations of a

stalwart and vigorous yeomanry, who cannot only defend and perpetuate government, but become fathers and mothers of statesmen, philosophers and warriors—men who can say ambition has no height where genius and talent may tread that has not felt the impress of their feet.

And now, in conclusion, Mr. President, we would repeat our welcome to your distinguished fraternity of scientific workers, hoping that your session in Goldsboro shall have accomplished much for your organization, much for the profession of medicine, much for suffering humanity, much for the world, much for yourselves. May Heaven's choicest blessings be in store for you! May you live to enjoy long, useful and happy lives! May the hand of Fate bestow on you fame, wealth and happiness; and, finally, sir, may the North Carolina State Medical Society live in the love of science and fellowship until that God whose means and ends are love shall decree that they shall end on earth, but still may love and fellowship guide you through the pearly gates into the eternal city.

On behalf of the Society Dr. C. J. O'Hagan, of Greenville, 'made the following

RESPONSE.

Mr. Mayor, Ladies and Gentlemen :

My friend, Dr. Cobb, has given me such a wonderful send-off here I'm afraid that you will expect far more than I am able to give you; and after the eloquent and warm address of welcome we have received I find I have no language sufficient to express the feelings that animate this body.

I'm a plain, blunt man, not gifted with a set phrase of speech, one whose days and nights are occupied with sick beds in work, and I regret at this time that I am not gifted with the necessary powers of speech to express in sufficient terms the feelings and gratitude that we feel toward the Goldsboro people to-day, not that it is strange to me, for I knew it before—I knew it when it was a way station, and should I have not seen it from that time until the present, I would have been astonished at the wonderful growth; at your wide and spacious streets, showing that the sanitation of the place is attended to; at the wonderful industrial works; and, above all, the enlightened system of education which you have provided for the youth. All these testify to the energy of the public spirit and the munificence and magnificence of the people of Goldsboro. And among all the triumphs, industrial and other, none can possibly compare with the educational institution which you have here in your midst—the Goldsboro Graded School. All other achievements, in my judgment, sink into insignificance compared to that. As the English poet Gray, in his *Elegy upon the Church-yard*, speaks of "full many a flower born to blush unseen," so many a flower which would have withered under the blighting hand of penury, will arise and, in years to come, will shed glory not only upon the town which has bestowed these educational advantages, but upon the whole country to which we belong.

But while thinking of these triumphs I cannot but refer back to the past and wish that I could see here, among the many faces which surround me, the many friends who have gone before. I think, also, of the many gallant soldiers who have gone from this town, of the brave Goldsboro Rifles, who, among thousands of others, gained and held the fame and glory of North Carolina bravery. And can I forget that gallant band of cavalry, that first cavalry to which I had the honor to belong, and the gallant Tom Ruffin, the purest and best and noblest man of the many with whom I have been ac-

quainted? There is a beautiful custom in the French service: After the days of the first revolution of France, when the Grenadier Guards came to the front for review, they called out the name of the best and oldest Grenadier, and his name was Lateur De Verne. Some one stepped forward, and, with a shout, proclaimed, "Dead upon the field of battle;" and when the name of Thomas Ruffin is called the answer comes, "Dead upon the field of battle," a cavalier without fear and without reproach, an honor to any service and a leader of men, one of whom the Roman legionaries and the guard of the great Emperor himself were not superior.

And now, ladies and gentlemen, at the risk of being tedious, I will bring my few scattered remarks to a close, and in the name of the Medical Society of North Carolina thank you, again and again, for your generous and hospitable welcome.

The Committee of Arrangements announced that an entertainment would be given to the Society in the Opera House that evening.

The Society was now called to order by the President for the transaction of business.

The plan followed at the meeting in Greensboro of allowing 20 minutes for the reading of a paper and 5 minutes to any member in the discussion was adopted for this session.

The following Committee on Credentials was appointed: Drs. W. H. H. Cobb, R. H. Whitehead and Albert Anderson.

Drs. W. J. Jones, R. J. Noble and W. C. Galloway were appointed the Committee on Finance:

The roll was called by the Secretary.

The President's Address was now read before the Society and a number of the citizens of Goldsboro. (See page 277.)

On motion, the thanks of the Society were extended the President for his profitable and interesting Address, and it was referred for publication.

The members of the Society were invited to visit the Eastern Hospital by the Superintendent, Dr. Miller.

The Society adjourned till 3 o'clock.

FIRST DAY—AFTERNOON SESSION.

Society called to order by the President at 3 o'clock.

The Committee on Credentials introduced Messrs. John H. Hill, H. C. Shannon and C. B. Miller as Delegates from the North Carolina Pharmaceutical Association, who were welcomed by the President.

Dr Albert Anderson read a paper on "Diphtheria Antitoxine," which was referred to Committee on Publication. (See later issue.)

The Committee on Credentials made a partial report. (All reports from this Committee will be embraced in one which appears in proceedings of last day.)

Dr. P. L. Murphy, of Morganton, next read a paper entitled "Care of the

Insane and Treatment and Prognosis of Insanity." Referred to Committee on Publication. (See later issue.)

Dr. Hays read a memorial sketch of the late Dr. R. L. Payne, prepared for the Guilford County Medical Society. It was referred to the Obituary Committee.

Upon motion, Dr. Julian, Secretary of the Davidson County Medical Society, of which Dr. Payne had been a member, was requested to read a memorial of Dr. Payne. The paper was referred to the Obituary Committee, and ordered by that Committee to be incorporated in their report.

Dr. Bahnson presented a paper by Dr. A. R. Wilson, Chairman of Section on Physiology and Materia Medica, which was read by title and referred to the Committee on Publication.

Dr. J. G. Blount, of Washington, read a paper on "Anæsthesia," which was referred to the Committee on Publication. (See later issue.)

Dr. A. W. Knox, Chairman of Committee on Législation, made his report.

Upon motion, the report was accepted and a vote of thanks was extended to the Committee on Legislation, to Dr. Lewis and to all others who had looked after the interest of the Society and of the people of North Carolina by preventing the enactment of unwise laws.

Dr. R. H. Whitehead, of Chapel Hill, read a paper entitled "A Case of Multiple Perforation of the Small Intestines," which was referred to the Committee on Publication. (See later issue.)

Dr. H. A. Royster, of Raleigh, gave an instructive and interesting practical "Demonstration of a New Method in Applying Plaster-of-Paris Dressing in Fractures."

The Society was very much gratified with the demonstration by Dr. Royster, and referred the paper to Committee on Publication. (See later issue.)

Dr. S. J. Montague, of Winston, read a paper entitled "A Report of a Case of Chronic Purulent Otitis Media." Discussed by Dr. R. H. Lewis and referred to the Committee on Publication.

The following Committee on the President's Address was announced: Drs. J. W. McNeill, W. H. Harrell and J. L. Nicholson.

An invitation from the Y. M. C. A., extending the use of their Halls to the Society, was read and the thanks of the Society returned.

Society adjourned till 9: 30 a. m. Wednesday.

SECOND DAY—MORNING SESSION.

The Society was called to order by the President at 9: 30 o'clock.

The following Committee on Nominations was appointed: Drs. R. S. Young, P. L. Murphy, W. H. Cobb, Jr., F. R. Harris and J. B. H. Knight.

Committee on the Duffy Prize Essay made the following report, which was adopted:

Your Committee on Award of the Duffy Prize beg leave to report that two papers were submitted in competition for the prize; that we have given a careful examination to both papers, both separately at our respective homes, and conjointly as a committee after reaching Goldsboro, and that we have reached the following conclusions:

1. Neither essay gives the botanical descriptions with sufficient accuracy to lead to the identification of the remedies named.
2. Neither paper gives the physiological actions and therapeutic indications for the proposed remedies with sufficient detail.

Therefore, while both essays are creditable, your Committee does not think that either attains that high order of merit which your Society demands and which would entitle it to the award of a prize.

We desire to say, also, that we have not opened the sealed envelopes which contain the real names of the respective writers of the papers, and that, therefore, their incognito is preserved.

We have delivered the papers to the Secretary of the Society, and their owners can secure them from him, if they so desire.

Respectfully submitted,

R. L. PAYNE,	} Committee.
A. W. KNOX,	
A. CHEATHAM.	

Dr. A. A. Kent, Leader of Annual Discussion, opened the discussion by reading a paper on "The Abuse of Alcoholic Stimulants in Practice." (See later issue.)

Dr. Picôt asked the pleasure of introducing to the Society the distinguished Professor of Surgery in the Jefferson Medical College of Philadelphia, Dr. W. W. Keen, who was invited to the courtesies of the floor.

Dr. R. H. Whitehead read a paper entitled, "The Anatomy of Hernia with Reference to Vacewan's Operation," which was referred.

Dr. C. O'H. Laughlinghouse read his report as Chairman of the Section on Anatomy and Surgery, entitled "Something of Surgery up to Date." (See later issue.)

Discussed by Drs. W. W. Keen and H. T. Dahnsen and referred to the Committee on Publication.

Dr. W. J. Jones offered the following report of the Finance Committee:

To the Medical Society of the State of North Carolina:

Your Committee on Finance having examined the books and accounts of the Treasurer, beg leave to make the following report:

Balance on hand, May 15th, 1895.	\$1,307 41
Amount paid out on vouchers to date	692 40

Balance on hand,	\$ 615 01
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The committee recommend the usual assessment of \$2.00 per capita for the

ensuing year, and that the salaries of the Secretary and Treasurer be the same as for last year.

Respectfully submitted, W. J. JONES,
R. J. NOBLE,
W. C. GALLOWAY.

Dr. J. W. Long read a paper on "Surgical Technique," illustrating his paper with photographs and specimens of dressings, etc. Referred to the Committee on Publication.

Dr. R. H. Lewis stated that the law required the Society to furnish books for the registration of physicians by the county clerks, and that the first supply was exhausted. He moved that a committee be appointed to have a lithograph plate made for printing these forms and that a sufficient number of books be printed.

Motion prevailed, and the Chair appointed as the Committee Drs. R. H. Lewis, R. D. Jewett and A. W. Knox.

Dr. Lewis announced that the name of Dr. Thomas Fanning Wood had been placed upon the portrait presented by the Society to the State Library and the portrait placed in position. The report was received and the committee discharged.

Dr. R. L. Grainger, a member of the New York Medical Society, was introduced by Dr. Bahnson and extended the courtesies of the floor.

The committee appointed to consider the wisdom of establishing the office of Librarian made the following report, which was adopted:

Your committee to whom was referred, at the Greensboro meeting of the Society, the matter of the disposition of the "books, exchanges and other valuable periodicals of the Society," do respectfully recommend that the Secretary of the Society be, and he is hereby, instructed to deposit the same in the library of the State University at Chapel Hill, where they may be consulted by the pupils of the Institution, members of this Society and other members of the profession, when desired, under the rules and regulations governing the use of other books in the library of said University; *provided* that the said books be accepted by the University as a loan.

Respectfully submitted,
J. HOWELL WAY,
H. T. BAHNSON,
T. S. McMULLAN.

Adjourned to meet at 3 o'clock.

SECOND DAY—AFTERNOON SESSION.

Session called to order at 3 o'clock by the President.

Dr. D. T. Tayloe read a report of surgical cases as follows: "Interstitial Fibroid—Removal by Supra-pubic Hysterectomy"; "Removal of Uterine Appendages for Disease"; "Osteotomy for Angular Deformity After Fracture of Tibia and Fibula."

Referred to the Committee on Publication.

ELECTION OF OFFICERS.

The hour having arrived for the election of officers for the ensuing year the President called for nominations for President.

In a neat and complimentary speech, Dr. W. H. H. Cobb nominated Dr. R. L. Payne, of Lexington.

There were no other nominations, and, on motion, the Secretary was instructed to cast the vote of the Society for Dr. Payne, whereupon he was declared duly elected President of the Society for the ensuing year.

The following Vice-Presidents were nominated and unanimously elected:

1st Vice-President—Dr. S. D. Booth, Oxford.

2d “ “ —Dr. J. P. Munroe, Davidson.

3d “ “ —Dr. J. A. Burroughs, Asheville.

4th “ “ —Dr. J. E. Grimsley, Snow Hill.

Nominations for Secretary being in order, Dr. Robert D. Jewett was placed in Nomination, and there being no further nominations, the Treasurer was requested to cast the vote of the Society for him, and he was declared elected.

Dr. M. P. Perry was placed in nomination for re-election to the office of Treasurer, and, on motion, the Secretary was requested to cast the vote of the Society for him, and he was declared unanimously elected.

Dr. J. A. Burroughs read his report as Chairman of Section on Medical Jurisprudence and State Medicine, being entitled “Needed Legislation and a Practical Enforcement of Existing Laws.” Referred to the Committee on Publication.

The Committee on President's Address offered the following report, which was received and adopted:

The committee appointed to consider the recommendations in the President's Address, respectfully report as follows:

1st. That his urgent appeal in behalf of the protection of public health from small-pox and other preventive diseases is timely and deserves the most serious consideration from the Society. While we recognize the valuable efforts on this line by our State Board of Health, the magnitude of this question is so great and of such vital importance to the people of our State, we urge the Society, as a body, and its members as individuals, to aid in every way the carrying into effect the President's recommendations.

2d. That we advise the adoption of the recommendation, “That more time be allotted to the two Sections on the ‘Practice of Medicine’ and ‘Surgery.’”

3d. We recommend that the suggestion in reference to the selection of the Committee on Legislation be adopted.

4th. In view of the fact that a committee was appointed at the last meeting of this Society to consider the establishment of the office of Permanent Secretary and Librarian, this committee, while heartily endorsing our President's suggestions, will make no recommendation in regard to this matter.

J. W. McNEILL,
W. H. HARRELL,
J. L. NICHOLSON.

(To be continued.)

AMERICAN MEDICAL ASSOCIATION.

Forty-Sixth Annual Meeting, held in Baltimore, May 7, 8, 9 and 10, 1895.

The first session of the Forty-Sixth Annual Meeting of this Association was held in the Music Hall, on Mount Royal Avenue. It was called to order by the President, Dr. Donald Maclean, of Detroit, at 10:45 a. m.

The opening prayer was delivered by Rt. Rev. William Paret, the Episcopal Bishop of Maryland.

Dr. Samuel C. Chew, chairman of the Reception Committee, then delivered an address of welcome on behalf of the medical profession of Baltimore.

Doctor Donald Maclean delivered the presidential address, taking for his theme, "A Few Living Issues Affecting the History of Medicine and what Came of Them." He recalled briefly certain questions which in their day received the active and interested attention of thinking people. For some years immediately preceding and immediately following the beginning of his professional life, the attention of science and of medical thought was directed toward that renowned centre of medical and general learning, his own alma mater, Edinburgh. A glance at the names which at that time constituted its medical faculty will explain this. They were Syme, Simpson, John Hughes Bennett, John Goodsir, Robert Christison, Lyon Playfair, Mr., now Sir William Turner, who is the only one still remaining of that brilliant galaxy of teachers and philosophers. Such a faculty could not fail to attract interested attention. While it is well known that at Edinburgh a vast amount of extremely valuable work was, in these days, accomplished in all departments of medical science, still there was, in that far-famed school, one man and one question toward which, from every quarter of the civilized world, eager anticipations were directed. This man was James Young Simpson, and the question was, "The use of chloroform as an anæsthetic." Having caught the essential idea of relieving pain by the inhalation of ethereal vapors, from this great nature, devoted all his eloquence, ingenuity and literary acumen to the development and final establishment of the new doctrine. How he succeeded we now know full well.

The issue next referred to was that which ultimately eventuated in the complete abandonment of blood-letting and the so-called antiphlogistic expedients upon which the profession had so confidently relied.

The rise and development of the new art of gynecology, under the leadership of J. Marion Sims on this side and of Simpson on the other, was then recorded. From very insignificant and unpromising beginnings this science has certainly, as we all know, increased and grown, and, in short, passed through an almost miraculous process of evolution.

In this retrospective view of living issues in medical thought, it would be impossible to overlook the important and inspiring one comprehended under

the name of "the cellular pathology." With this page in the history of our science, the great name of Virchow will always be inseparably associated, as its founder and greatest advocate. While the doctrine "*Omnis cellula e cellula*" had not explained all the mysteries of pathology, few can admit that the discoveries of Virchow and his school do not stand out as among the most inspiring discoveries of medicine.

An appeal was made for a remodelling in methods of medical education, and the support of the profession was asked in securing a bureau of health (with an official head in the cabinet). The party, professional or political, which shall succeed in consummating this wise measure will assuredly earn for itself the gratitude and applause of an appreciative nation. The individual citizen who shall materially contribute to the success of this noble, "useful plan," will be justified in congratulating himself on having realized the lofty aspiration of the patriot, as well as the sublime and pathetic "wish" of the poet: "*Homines deos accedunt hominibus dando salutem.*"

Dr. John H. Hollister, of Chicago, read a paper entitled "New Departures in Therapeutics." In order to judge of the medical theories of any age, he said, it is only necessary to study the therapeutics of that age. For many years medical science was compelled to conduct a defensive warfare as we were ignorant of the etiology of morbid processes and were compelled to exhibit our remedies empirically; but the microscope and laboratory have opened up to us fields of great promise, and we now feel the impress of a new era from which will date the renaissance of medicine. The therapy of to-day is aggressive. Twenty years ago the two great therapeutic theories were, first, the cellular, and second, the humoral. At this later day we have, in a sense, made a return to these landmarks, and can now speak of organic therapy, or the therapy of substitution and of the sero-therapy. The former was ably championed by Virchow, and with the latter the name of Behring is inseparably linked. The organic therapy is based upon the fact that all vital activity has a cellular genesis, and that an equilibrium of all these activities constitutes that condition which we call perfect health. Whenever there is an impairment of cell activity we have impaired function, cell degeneration, and, in the worst cases, death. Remedial agents are valuable as they affect cell vitality. Cells have a certain *vis vite* or resistance against morbid processes. They elaborate nucleins, proteids and albuminoids, which oppose the influence of toxic products. Slight cell-irritation increases cell-activity. And in their struggle with bacteria they act not as phagocytes, but throw themselves around the invader so as to surround him with more anti-toxin. Cells are supposed to have a selective power of absorption. Hence have arisen a series of nutritive extracts made from various organs. The theory of Brown-Séquard, which was so much ridiculed at first, has now become better understood and followed out in a logical way. With two substances of this latter group the writer has had some practical experience.

He has used red bone-marrow for the past two years for simple anæmia, and has seen better results therefrom than previously with arsenic, oil or iron. He has also used nuclein, though the discovery of this is not a new thing. Vaughan has already shown that there are certain substances which can be extracted from animal tissues, notably the thyroid spleen and bone-marrow, which, when injected into the animal economy seem to have an antiseptic power in the alimentary canal, stimulate the brain and nerves and energize all vital processes. Nuclein seems antidotal to diphtheria, and the cell reaction which is originated by its use increases the nuclein supply of the body.

As to sero-therapy, it is a logical outcome of the germ-theory of disease, which itself grew out of the discovery of cell agency in fermentation, the discovery of living organisms in pus, the conveyance of germs through the air and their appearance in the blood and tissues; then followed culture-work, and, finally, the causative relation of specific microbes to specific diseases. Finally came up the principle of systemic infection from germ-growth over and above the local effect of their ravages. To oppose this physiologically came the discovery of the germicidal power of blood-serum and the establishment of the doctrines of artificial immunization, first proven with respect to anthrax, and now with reference to several other maladies. Important points to decide are the dosage of the serum to be injected, and the fact as to its permanency in our armamentarium.

In the opinion of our German confrères its introduction in diphtheria has reduced the mortality from forty-four per cent. to twenty-one per cent. One observer out of five hundred and twenty-five cases had a mortality of only eighteen per cent., though before the serum injections it had been twenty-one per cent.. At the recent Medical Congress in Munich it was declared to be the sense of the meeting, first, that it is harmless; second, that many observers have seen good results from its use, and third, that as to its prophylactic power, the question is still open.

Several points yet remain unsettled. We do not yet know enough as to the possible globicidal power of the transferred serum to say whether the remedy is perfectly safe. Nor are we well acquainted with the effects and counter-effects of mixed infections. But if infectious diseases are developed by micro-organisms, and if blood-serum is injurious, other means of therapeutic value may yet be found. Edinger, of Freiburg, has noted that the mucous secretions and saliva are distinctly antiseptic, and that both contain a large relative percentage of thiocyanite of potassium. He has combined this substance with quinoline and produced a compound called rhodonate of methyl-pyridine. Solutions of this check the growth of Loeffler bacilli in one hour (1 to 1,000) and that of staphylococcus aureus (3 to 200) in the same time. It is not caustic, as carbolic acid, nor poisonous, as bichloride of mercury.

The discussion of this paper was opened by Dr. W. C. Quine, of Chicago.

He had used the extract of bone-marrow and could give his unequivocal endorsement as to its value in simple anæmia and in cases of apparent progressive pernicious anæmia. In a case of splenic leucæmia it had increased the hæmoglobin eight per cent. and the red cells seventeen per cent. Yet, notwithstanding this, the multiplication of white cells went on with even greater rapidity than before. So that there was a great increase in the volume of the blood by reason of the augmentation of its cellular contents.

In the use of the diphtheria antitoxin he had seen various eruptions, and, in one case, bloody albuminuria, the case, however, recovering. But he had also had some very striking recoveries in cases where laryngeal or nasal involvements were threatened, and it appeared that death would result in a day or two without injections were made. Relief in a few such cases had led him to cherish a distinct regard for the new remedy; nevertheless, it was a gift horse whose merits needed the closest inspection.

Dr. F. B. Turck, of Chicago, had seen good results follow from the use of nuclein in the auto-intoxication which results from gastric disorders. This might show itself as a nervous irritability (neurasthenia so-called) or in a soporific depression leading up to melancholia. The toxins from germ-growth are upon the intestinal walls, and the use of nuclein has seemed to get directly at the cause of the trouble. Especially good effects have been seen in vasomotor excitation ("flashes," etc.) and in patients with agoraphobia. The substance is not a specific, but is a great addition to our therapeutic resources.—*Medical Record*.

CHEAP AND HANDY APPLICATORS.—Dr. John Winslow, of Ithica, N. Y., says that the best short cotton applicators are the common four-sided, double-pointed, hard-wood tooth-picks, costing five or ten cents a thousand. The best long ones, for most purposes, are made of iron wire, flattened with a hammer at the distal end and bent into a ring handle at the proximal. The wire should be flexible enough to be easily shaped by the fingers after winding, and stiff enough to retain the shape so given. Such wires, made by the tinsmith at a trifling cost, may be thrown away after once using, or may have the cotton burned off and be used again. They cannot, of course, replace the flat silver applicator where great pliability is required.—*Ibid*.

An old gentleman, one hundred and two years of age, living in Maine, recently fell, as he was preparing to shave himself, and fractured the neck of the femur. He claimed that he had not had to seek medical aid before for eighty years.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

The Goldsboro Meeting.

The Forty-Second Annual Meeting of the State Medical Society, held in Goldsboro, May 14th to 16th, was a pronounced success. The unfortunately late arrival of trains on the main railroads made the attendance at the opening session quite small, but the full attendance, as shown by the registration book, was but little less than that at the Greensboro meeting. The programme was full, and many of the papers were of much scientific value. It is a remarkable fact that, with the exception of the report of the regularly appointed Chairman of the Section on Gynecology, there was not a single paper

presented that pertained to that Section. On the other hand, the sections on Surgery, Practice and Obstetrics were full. Members seemed to have anticipated the recommendation of President Tucker that more time should be allotted to these sections.

Goldsboro was looking her prettiest and her people welcomed the Society with abundant hospitality. Each day was marked by some enjoyable social feature which was thoroughly appreciated by the members. Oh, if the hotels of Goldsboro were only as big as the hearts of her people, there would be nothing to ask for; but they are not. The crowding of eight men into one room, with no conveniences for making

their toilet, will not tempt them to leave comfortable homes to attend future meetings of the Society. The Society is growing to such proportions that the smaller towns cannot accommodate it, and the matter should be taken into serious consideration. The comfortable accommodation of members who attend the meetings is a matter which will affect the growth and welfare of the Society to a certain extent. We believe it would be well, and would meet with the approbation of four-fifths of the members, to have the meetings limited to the five largest towns in the State. These would cover sufficiently every portion of the State, and would ensure comfort to those who might attend.

In the unanimous selection of Dr. R. L. Payne as President for the ensuing year, the Society has bestowed its highest honor upon one of her most deserving members and at a most fitting time, for it was at the Goldsboro meeting, in 1878, that his lamented father occupied the Chair. No one could have been selected who would appreciate in a higher degree the responsibilities of the office, or who would strive with greater energy to advance the welfare of the Society.

The report of the Committee on Legislation shows that the Society has much cause for self-congratulation, and not only the Society, but the profession and people of the State at large, for, while the unsettled condition of affairs at the Capital rendered it unwise to attempt the enactment of several laws that would be of undoubted benefit, much unwise legislation which was introduced was

prevented through the energy of the Committee and a few other friends of the Society.

The American Medical Association.

The anticipation of those who were looking for a successful meeting of the national Association at Baltimore were realized. Baltimore was a fortunate selection as the place of meeting. The registration books showed upwards of a thousand delegates present. Besides these there were many others, but notwithstanding the very large attendance, they were comfortably provided for.

The work done by the various sections was of high scientific merit, and the general sessions provided much that was interesting. It is pleasant to note that all propositions to change the Constitution were promptly tabled. The action of the Trustees in requiring all advertisements in the *Journal*, after expiration of existing contracts, to be accompanied by a formula giving names and quantities of each ingredient, to be printed as a part of the advertisement, will meet the approval of probably a majority of the members.

The names of the newly elected officers, as given in our last issue, were taken from the telegraphic reports and were somewhat mixed. We give them properly below:

President—R. Beverly Cole, of San Francisco.

Vice-Presidents—1st, J. J. Chisolm, of Baltimore; 2d, J. C. Le Grand, of Anniston, Ala.; 3d, A. P. Clarke,

of Cambridge, Mass.; 4th, T. P. Satterwhite, of Louisville, Ky.

Treasurer—Henry P. Newman, of Chicago.

Secretary—W. B. Atkinson, of Philadelphia.

Librarian—Geo. E. Wire, of Chicago.

The Association will hold its next meeting in Atlanta, beginning the first Tuesday in May, 1896. It is needless to say that Atlanta will prove equal to the occasion.

Reviews and Book Notices.

Medical Gynecology. A Treatise on the Diseases of Women from the Standpoint of the Physician. By Alexander J. C. Skene, M.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; etc., etc. With illustrations. Octavo, cloth, pages 548. D. Appleton & Co., New York; 1895.

Of late years the term "Gynecology" has come to have invariably associated with it, in the minds of the profession, the dilator, the curette and the scalpel. An operation, either major or minor, is the first thought of many when consulted by a woman for some derangement of her generative organs. It is a pleasure, then, that so eminent and successful a gynecologist as Dr. Skene should devote an entire and independent volume to the medical treatment of these disorders. Those who have read after Dr. Skene, or who have heard his able dissertations in the class-room, will welcome this volume with satisfaction.

Part I. deals with the primary differentiation of the sex development and growth during early life, and the conditions favorable to the evolution of normal organization and the attainment of a healthy puberty. In this part are discussed the hygiene

of the growing girl, physical and mental culture and the causes and treatment of derangements of menstruation.

Part II. treats of the characteristics of sex, the adaptation of structure to function, the predisposition to particular diseases and the cause of certain affections peculiar to women. In this part are taken up all the diseases, functional and organic, common to the active functional period of woman's life. These are treated solely from the physician's standpoint.

Part III. discusses the menopause, when the generative organs are passing from their period of functional activity to that of rest. It includes those diseases which are common to women in the latter part of their lives.

The book is well printed on good paper, and the illustrations, though few, are sufficient. We notice an error in the description of Fig. 12, showing the nine spaces of the abdomen. The region above the umbilical is denominated the hypogastric, and the one below the epigastric. However, this is not likely to mislead, especially as the description of

the spaces in the text gives them properly. We feel sure that the present work will attain the same popularity that has marked the other writings of the distinguished author.

The International Medical Annual and Practitioner's Index: A Work of Reference for Medical Practitioners. By Various Editors and Contributors; 1895. Thirteenth Year. E. B. Treat, 5 Cooper Union, N. Y. Price \$2.75.

For the thirteenth time this excellent work has come to lend its aid in placing the busy practitioner on a level with the times. It is a volume of six hundred and forty-eight octavo pages, and is liberally illustrated

when necessary to supplement the text. Part I. describes the new remedies and gives a review of therapeutic progress for 1894. This includes a chapter on electro-therapeutics and one on anti-microbic treatment. Part II. is a dictionary of new treatment in medicine and surgery for 1894, as gleaned from the best authorities of all countries. Part III. treats briefly the improvements in sanitary science and progress in pharmacy and gives a list of new inventions and new publications. The volume has been kept within the same bounds as the last issue, without injurious condensation.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From May 2d, 1895, to May 28th, 1895:

Richard, Capt. Chas., Assistant Surgeon, will, when relieved from duty at the Military Prison Fort Leavenworth, Kansas, proceed to and take station at St. Louis, Missouri, for duty as Attending Surgeon and Examiner of Recruits.

Egan, Capt. P. R., Assistant Surgeon, is relieved from duty at Fort Custer, Montana, and ordered to Fort Assiniboine, Montana, for duty, relieving Major Charles B. Byrne, Assistant Surgeon. Major Byrne, on being thus relieved, is ordered to Fort Snelling, Minn., for duty.

Skannon, Maj. Wm. C., Surgeon, upon the expiration of his present leave, is ordered to Fort Custer for duty.

Howard, 1st Lieut. Deane C., Assistant Surgeon, will be relieved from duty at Fort Snelling, Minn., upon the arrival there of Maj. Chas. Byrne, Surgeon, and will then proceed to

Fort Custer, Montana, and report for duty at that post.

Chapin, Capt. Alonzo R., Assistant Surgeon, having been found by an Army retiring board incapacitated for active service on account of disability incident to the service, is, by direction of the President, retired from active service this date, May 10, 1895.

Wakeman, Capt. Wm. J., Assistant Surgeon, is granted leave of absence for four months, to take effect on being relieved from duty at Fort Thomas, Ky.

Waters, Wm. E., Surgeon U. S. Army, is granted leave of absence for one month and fifteen days, to take effect on or about June 16, 1895.

Matthews, Major Washington, Surgeon. The extension of leave of absence on surgeon's certificate of disability, granted Major Washington Matthews, is further extended four months on surgeon's certificate of disability.

Johnson, Capt. Richard W., Assistant Surgeon, is relieved from duty at Washington Barracks, D. C., and ordered to Fort Huachuca, Arizona, for duty, relieving Major Timothy E.

Wilcox, Surgeon. Major Wilcox, on being thus relieved, is ordered to Fort Schuyler, New York, for duty.

Ewen, Major Clarence, Assistant Surgeon. The leave of absence on account of sickness granted Major Clarence Ewen, is extended three months on account of sickness.

Crampton, Capt. Louis W., Assistant Surgeon, will report in person to the president of the examining board appointed to meet at Denver, Colo., on May 14, 1895, for examination for promotion.

Snyder, 1st Lieut. Henry D., Assistant Surgeon, is granted leave of absence for two months, to take effect upon the conclusion of his examination to determine his fitness for promotion.

Gibson, Capt. Robt. J., Assistant Surgeon, will be relieved from duty at Fort Sam Houston, Texas, by the Commanding Officer of that post, and will report in person to the Commanding Officer of Fort Thomas, Ky., for duty at that post.

Crampton, Capt. Louis W., Assistant Surgeon, is granted leave of absence for ten days, to take effect from the date of the conclusion of his examination for promotion.

Gardner, Maj. Wm. H., Surgeon, is relieved from duty as Attending Surgeon and Examiner of Recruits at Headquarters Department of Dakota, and ordered to Fort Reno, Oklahoma Territory, for duty at that post, relieving Major H. M. Cronkhite, Surgeon.

Cronkhite, Maj. H. M., Surgeon, is granted leave of absence for four months, on surgeon's certificate of disability, with permission to leave the Department of the Missouri, to take effect on being relieved from

duty at Fort Reno, Oklahoma Territory.

THE NAVY.

Two weeks ending May 18, 1895: *White, S. S.*, P. A. Surgeon, is ordered to the U. S. S. "Bancroft" June 8th, 1895.

Baker, J. W., P. A. Surgeon, ordered from the "Enterprise" and Recorder Navy Medical Examining Board.

Barnum, M. W., Assistant Surgeon, resigned from the Navy May 7th, 1895.

Boyd, Robt., Assistant Surgeon, resigned from the Navy May 8th, 1895.

Drennan, M. C., Surgeon, ordered for examination preliminary to promotion.

Wilson, H. D., Assistant Surgeon, detached from "Vermont" and to the "Monongahela."

Beyer, H. G., Surgeon, ordered to the U. S. S. "Monongahela."

Young, L. L., Assistant Surgeon, ordered to examination for promotion.

Olcott, F. W., P. A. Surgeon, from the "Constellation" and to the "Enterprise."

MARINE HOSPITAL SERVICE.

Wheeler, W. A., Surgeon, detailed as chairman board for physical examination of applicants for appointment in Revenue Cutter Service, May 13th, 1895.

White, J. H., P. A. Surgeon, detailed as recorder board for physical examination of applicants for appointment in Revenue Cutter Service May 13th, 1895.

Carrington, R. M., P. A. Surgeon, granted leave of absence for ten days, May 4th, 1895.

Cobb, J. O., P. A. Surgeon, granted leave of absence for fourteen days, May 1st, 1895.

Miscellaneous Items.

The next issue of the JOURNAL will contain the report of the Board of Medical Examiners in Goldsboro, with

a list of the licentiates and the examination questions. We may also give some of the answers by some who failed.

There were present at the Goldsboro meeting representatives of the following popular houses: Messrs. Parke, Davis & Co., Messrs. Sharp & Dohme, Messrs. Wm. R. Warner & Co., Messrs. Bartlett, Garvens & Co., Harris Lithia Water Co., E. A. Yarnall Co., Malted Milk Co., Dios Chemical Co., Messrs. H. K. Wampole & Co., Messrs. G. F. Harvey & Co.

STATE BOARDS OF MEDICAL EXAMINERS.—At the recent conference of State Boards of Medical Examiners, held in Baltimore, steps were taken to effect a permanent organization. The meeting was presided over by Dr. Quine, of Chicago, and Dr. L. J. Picôt, of North Carolina, was elected Secretary *pro tem*. Drs. Chas. McIntyre, of Pennsylvania, W. W. Potter and H. M. Payne, of Buffalo,

N. Y., were appointed a Committee on Constitution and By-Laws. The following officers for the next meeting were electe: *President*—Dr. W. W. Potter, Buffalo, N. Y. *Vice-President*—Dr. J. M. Hays, of Greensboro, N. C. *Secretary*—Dr. B. M. Griffith, Springfield, Ill.

Medicine is the title of a new medical monthly which is published by the well-known medical publisher, Mr. Geo. S. Davis, Detroit, Mich. The Journal is edited by Dr. Harold N. Moyer. The first number has been received and deserves to take a front rank among medical monthlies. It contains sixty-four pages of reading matter—original papers, book-notices, progress in medicine. This issue is well illustrated, one illustration being a lithograph. There is no editorial in the first number.

Reading Notices.

MALARIAL CONDITIONS.—For all malarial conditions quinine is the best remedy we have; but associated with this condition there is always more or less pain, which often renders the life of the individual uncomfortable, if not positively miserable. Antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work. In headache (hemisrania), in the neuralgias, in anæmic patients, who have malarial cachexia, and in a large number of affections more or less dependent upon this cachectic condition, the regular administration of this combination will produce the most happy results. In cases of malarial

fever it should be given as a prophylactic and cure.

ANÆMIOL.—On page 5 of this issue will be found the advertisement of this new preparation just placed upon the market by Messrs. H. K. Wampole Co. It is a preparation of beef, containing hæmoglobin and albumin, and is a highly nutritious food, which will prove of great benefit in the gastro-enteric diseases now so prevalent, as in other wasting diseases.

The preparations of "PEPSIN," made by Robinson-Pettet Co., are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See page 13.)

NORTH CAROLINA MEDICAL JOURNAL.

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Original Communications.

ANNUAL ESSAY—EMPIRICISM.*

By R. H. STANCELL, Jr., Margarettsville, N. C.

It is our custom, ladies and gentlemen, to hold annual meetings of this Society, which is, so to speak, our common mother, our standard for judging each other's characters, and beloved by all of us, and at those meetings held in the various large towns of the State, in rotation, we have established the custom of presenting to the general public an essay and an oration prepared and delivered by one of our members. This year the oration fell to my lot, and I am thus given an opportunity to renew my acquaintance with Goldsboro. Walking your streets and reading your signs recalls other days, when I stopped here on my journeys to and from La Grange and the school there. It is pleasant to think of happy days and to greet old friends anew. I have first to thank the nominating committee for conferring this honor on me. I accept it with a due sense of its importance and my inability to do it justice.

Since these papers are for the general public, it is not well to select a subject which involves too much technicality, and, on the other hand, it is the orator's affair to amuse, the essayist's to instruct, and this is a golden opportunity to endeavor to present to the audience food for reflection in regard to some of the many crying evils which menace the present public health and the future well-being of society. There are many such evils among us, thanks to the cupidity and ignorance of mankind. I shall confine myself to the history, causes, results and present condition of one of them. I therefore invite your attention to some considerations of the subject of

EMPIRICISM,

that is to say, Quackery. The word is derived from the Greek "emperikos,"

*Read before the North Carolina Medical Society, May 15, 1895.

a searcher after facts in nature, or experimentalist; but it long since degenerated from such a meaning. This was perhaps due to the fact that the empiric threw aside the reasoning faculties in his work because he did not need them, and therefore the profession of empiricism became synonymous with vulgar ignorance. Quackery exists in everything. There are pettifogging lawyers who are quacks, ranting preachers who are quacks, camp-followers and stragglers in war time who are quack soldiers, and there are quack doctors; whom, like the poor, we have always with us.

The most expressive definition of the quack doctor is: "A man who pours drugs of which he knows little into a body of which he knows less"; and, while this was applied by its brilliant originator to the entire medical fraternity, it so plainly refers to quacks that it is worthy of mention.

The history of empiricism is an interesting study in human nature extending over ages and serving as an indicator to point out and a monument to perpetuate the memory of the follies and weakness of man at every age and stage of his existence. It is as old as is medicine itself, having been the only kind of medical science which the Egyptians possessed, and the Jews, deriving their knowledge from the Egyptians, pursued the same plan; hence the marvellous entered largely into every cure, and the sacred writings furnish numerous proofs of this weakness of the human mind. It was the Greeks who first cultivated physic as a branch of philosophy and reduced the mass of accumulated facts to a system. From the specifics of the temple and the rubbish of popular credulity Hippocrates gave medicine the garb of a science and so enriched it with experience and observation that his writings are still worthy of consideration, but he could not overcome the fondness for empiricism; while men of science and honor and seekers after truth followed his dictates and improved his plans, popular credulity preferred the charm, the amulet or the wonder-working nostrum.

At the time of Galen and Celsus empiricism was a regular system, having been reduced by Serapion. He saw the field of medicine occupied by his brother physicians, who acted upon and strove to improve the doctrines of the day. Being desirous of taking a short cut to fame and wealth, he proposed to treat all diseases by a simpler method. He proclaimed it foolish and unnecessary to study pathology or etiology, the nature and cause of disease, and declared it was only necessary to be acquainted with the action of drugs in order to be a physician. These opinions of his were held by numerous followers who taught that, by accumulating a mass of fixed facts, invariable rules of procedure could be established in certain cases. There have been empirics ever since, but of late years they confine themselves to advertisements and do not presume to argue or expound their views in the presence of scientists. Like the stragglers of an army, they are quiet and humble in the presence of a soldier, but woe to the wounded or weak who come in their way.

Empiricism gained additional strength at a subsequent period by the introduction of chemistry into medicine. Its fanciful theories were aided by the dreams of the early alchemists. Paracelsus was the first to proclaim a hope of immortality to mankind by the use of his chemicals, few in number, though said to be all powerful; but Paracelsus died young and gave the lie to his boastful assertions, though his deluded votaries still continued to teach his methods.

Chemistry alone, however, did not keep this searching after short-cuts alive. The charm of healing in certain diseases has been claimed as a royal prerogative, and the mere touch of the sovereign's hand has been held sufficient to cure diseases of the most loathsome kind.

The influence of the royal touch began in England with Edward the Confessor. It was one of the artifices which this pious Prince used to excite respect, and his successors, however little they may have believed in it, did not lay aside the imposition. A form of prayer was even composed to be said during the ceremony and was employed as late as the time of Charles I. His son and successor did not believe in the practice, and is said to have had his hand roughly handled at various times. And it is said that he even made cures, giving sight to the blind and smoothing the fungus of a republican nose. His neice, Queen Anne, of pious memory, was the last to dispense the gift, and one of the last recipients was the learned Dr. Johnson, who really ought to have known better.

Empiricism received its first check at the hands of King Henry the Eighth, who acquiesced in the foundation of the College of Physicians, which examined into, and passed upon, the qualifications of all those who desired to practice medicine. The idea of its establishment first originated with the celebrated Linacre, who communicated it to the great Cardinal Wolsey. Henry was anxious to reform medicine in order to take its practice from the priests, into whose hands it had almost entirely fallen.

The chief hot-bed of empiricism at that period was Germany, which, being the fertile school of alchemy, naturally fostered errors and ran to elixirs and wonderful potions.

Perhaps the most noted empiric of this period was one Antony. He was an Englishman, educated at Hamburgh, who, on his return to England, announced the discovery of a most wonderful panacea extracted from gold. He published a treatise in support of his theory. It required a treatise to advertise a nostrum in those days, the *Caucasian* not having been founded. Paracelsus first showed that the metals possessed powers as medicines and the alchemists continued wedded to his opinions. They held that since gold was the first or King of metals, it ought to possess unlimited powers in the treatment of disease, could a proper solution of it be made.

Antony's potable gold brought him into persecution, but gained a comfortable living for his son. The zeal of quackery found wonderful hopes for

good in other bodies too. The air was supposed to contain a vital principle which the empirics strove in vain to concentrate and exhibit. It was abandoned and another object, "An original matter," which contained the principle of immortality and was supposed to reside in gold, was chased till, like the *ignis fatuus*, it disappeared in the darkness and left its silly followers to struggle out of the slough, into which it had led them, as best they might.

Another fallacy of the time, called judicial astrology, held that the celestial bodies influence the human frame. As far as humans go, this idea long since disappeared, but it is now, even, believed by numbers of people in this State that meat butchered in certain phases of the moon will lose largely in weight and that a wounded animal will bleed more profusely during the moon's increase than during its wane. Such was the progress of empiricism till the beginning of the eighteenth century, when it became divided between pseudoscience and open trade. Under the first of these come the early electricians and also galvanism; under the second the selling of rostrums from the stage and warehouse. Electricity in the hands of the empiric, Graham, promised the art of living in the world a hundred years with health and happiness and the propagation of offspring far more beautiful, both mentally and physically, than the present race of puny and probationary mortals, who crawl and fret and politely play at cutting each other's throats for nothing at all on this terraqueous globe. But Graham, like Paracelsus, died young and set no example of the truth of his precepts.

Galvanism, better known as mesmerism, gained its greatest *eclat* in the hands of Mesmer, a German. He proposed to cure all diseases by what he called animal magnetism. His house was converted, with seeming benevolence, into a hospital, where crowds of the lame, halt and blind came and went away cured. Its bubble burst in Germany, however, and Mesmer fled to Paris, where he formed a society for diffusing the art. The pupils he bound by oaths to secrecy, but their conduct was so manifestly reprehensible that the government ordered a commission to enquire into the discovery. Dr. Benjamin Franklin and Lavoisier were members of this commission, which declared in its report that the effects were produced by the influence of the mind of the empiric over that of the subject. The powers of imagination being aroused by contact and excited sensibility were easily directed by the practiced stronger will, until results arose which were astonishing and oftentimes entirely unexpected. This report put a stop to it for a while, but presently it rose again in the form of Perkins' Metallic Tractors. These were two bits of metal possessed of supernatural powers. A society was formed to extend their benefits, but they are no more. They had their day of greatness attested by the clergy and nobility. The Archbishop of Canterbury actually endorsed them, but recently, when a set of them was presented as a curiosity to a medical society, they were so utterly forgotten that it was necessary to have a committee search for their history *Sic transit gloria mundi*.

The charm is fled, they are no better than two skewers, for Haygarth's experiments fully exposed the fallacy. Finding that two thin bits of iron could no longer be sold for five guineas, Mr. Perkins quietly decamped with what he had accumulated.

The stage and patent medicine warehouse were now the favorite working places of quacks—the stage is the elder of the two. There the quack could descant upon the virtues of his preparations after bringing the audience into good humor by the tricks of a clown who preceded him. The dress of each was well suited to his part. The doctor in green and gold and the clown in a fantastic rig.

The green ointment and alterative pills always found a sale among the populace, and, as a proper set of patients was always at hand to avouch the truth of every miracle, the doctor met a courteous reception as he travelled from town to town.

But the stage did not suit the taste of every quack nor could patients be so easily supplied with nostrums from it as in a more private situation. Thus the patent warehouse came to be opened. The quack found it the best place for the sale of his nostrum, for patients could buy it there amid the multiplicity of articles without their conduct's being observed.

By far the greater number of these nostrums are taken either from the Pharmacopœia or else they are the private formulæ of physicians, which have fallen into the hands of persons absolutely ignorant as regards drugs, who either believe them good for every malady or else deliberately advertise them to be cure-alls when they know better. So great has been the popular favor for patent medicine that the regular druggist has been compelled either to sell them or lose by far the greater portion of his trade. The evil has grown until to-day fully one-half of every drug store is devoted to patent medicines.

This may be said to be the history of the evil. Its real origin has been in the hearts of wicked men since the days of Adam. Whenever anything succeeds it is sure to be imitated, and there are always to be found men who are only too glad to live by imitating and claiming knowledge which they do not possess, but which they are able to make the ignorant think they possess.

PRESENT CONDITION AND DIRECT RESULTS.

So much for its origin and history. Born of ignorance, reared, continued and propagated by the ignorance of the masses through ages, it to-day holds sway to an enormous extent throughout the entire world, but especially in America. Physiology and hygiene, which common-sense would suggest as being the proper study for children, are ignored in most schools entirely and receive only a casual bit of attention in any. Well has it been said: "The proper study of mankind is man," but the legislators and instructors of to-day take the stand that anything else but man is his proper study. This

does not apply to Goldsboro, however. After our entertainment of last night it is clear that through her excellent schools she is laying in a stock of healthy boys and girls who are sure to do credit both to their fair city and our beloved State.

The American people are a reading people, but there is no other thing of which the average American is so profoundly ignorant as of the structure and function of his own body. Nine people out of ten think that the same tube serves to convey air to the lungs and food and water to the stomach, while the fallacies of the torpid liver and "taking cold" are not even confined to the laity. Regularity of habits is unknown in this country, and whenever there is irregularity some ill-result must follow. When it happens what does the average man do? If it be irregularity in his shoe, he consults the cobbler; if it be irregularity among his buttons, he places himself in his wife's hands; if it be irregularity in his watch, he speeds to the jeweler; but if it be irregularity in his stomach or brain, does he consult the skilled workman? No, he takes down his bottle of patent stuff which he has seen advertised somewhere and he proceeds to dose himself. He recognizes the delicacy and value of his watch and does not understand its delicate arrangement of wheels, levers and jewels, and he dare not interfere with their frail continuity by thrusting a rude hand into the delicate mechanism. He does not recognize the marvellous beauty and the wonderful construction of his stomach and entire system, the nervous system ruling the whole yet influenced by any, nor, above all, does he know and understand, as far as man can understand, that wonderful power of interstitial change which is the difference between living matter and dead. Yet, in his ignorance, he dares to rudely meddle with his very life.

And, strangest of all, let some one who is familiar with the delicacy of this machinery but speak to warn him of the risk he runs, and what does he answer? You are a doctor—of course you are going to say it is wrong because it hurts your business. And it takes but few such answers to check the zeal of the most earnest. The doctor goes on his way knowing only too well that every dose of patent medicine taken is a direct increase in that doctor's bill which the ignorant one will surely have to make when nature rebels against the irregularities, imprudence, excesses and dosings to which she has been subjected.

Almost every person uses these drugs to some extent, and statistics prove that a large proportion of opium fiends begin the habit in this way, while many of these nostrums contain alcohol and are often the exciting cause of its terrible hold. They are sold in almost every general store, in all groceries and in most drug stores. Any one is at liberty to prescribe, buy or sell them; and this is strange, for if a person wishes to practice medicine he must undergo rigid examinations and prove himself competent; if he would be a druggist, he must serve an apprenticeship and then register, but any one, however

ignorant or incompetent, is at liberty to prescribe, buy and sell these drugs which are advertised to do more than any doctor dares promise, and contains ingredients which druggists are not allowed by law to sell.

The traffic in such medicines is something enormous, there being no restrictions upon the sale of them and there being such a large profit upon them. Thus a pint of cheap red wine, two ounces of sulphuric acid and enough water to make a gallon, when mixed and placed upon the market under a high-sounding name, sells for three dollars. The market is flooded with drugs guaranteed to cure all the ills the flesh is heir to, and year by year the traffic grows. Some of these drugs occasionally do good, no doubt, as they are, in most cases, either taken from the dispensatory or else are the prescriptions of some physician, but the wrong is not in the drugs themselves so much as in their indiscriminate use and ignorant application.

While the people in general have advanced so far in the last two centuries in matters pertaining to government, architecture, transportation, manufactures and all the other branches of knowledge, they have not stirred an appreciable inch in obeying the philosopher's command, "Man, know thyself"; for while the upper classes of late years are somewhat improved, the majority of the people are to-day as deeply ignorant of themselves as were their forefathers two hundred years ago. For instance, there was no more wildness in supposing potable gold to cure all ills than there is in supposing Radam's Microbe-Killer to do so; there was as much probability of the existence of an essential matter in gold as there is of the existence of a bichloride of that metal.

Mesmer's animal magnetism was no worse than the hundreds of galvanic and electric belts advertised daily. And the Archbishop of Canterbury's endorsing the Metallic Tractors of Perkins was no worse than the advertisement, in the papers of this State, of a Justice of the Supreme Court's certificate attesting the miraculous qualities of the "Electropoise." These sad facts *prove conclusively* that the people in general know no more now of themselves than those who lived two hundred years ago did. The existence of empiricism is an evil, in the present age a great evil, the own true child of ignorance and greed; but let a scientist declare that the high-sounding theory of some new fraud is false, and he is immediately accused of personal motives. The medical profession has been abused from the beginning of quackery by all quacks, and thus ignorance and calumny are enabled to defy knowledge and truth by crying to the ignorant that the doctors abuse their products because they are opposed by them.

These people catch at any and every new idea which promises to attract attention to their wares. No theory is too fanciful to be advanced and no statement too manifestly untrue to be made by them in their advertisements. They know that the intelligent classes will not know enough of nature to tell whether their claims are possible or not. And that the ignorant people know

absolutely nothing of such things. They also know that every person has some idea of his body's structure and mode of action, however wrong that idea may be. And they know that the influence of the only class who can expose them can be neutralized by the cry of self-interest, and accordingly they grow rich at the wrecking of thousands of otherwise healthy bodies.

"Alas for the rarity
Of Christian charity
Under the sun."

The liquor traffic does no more harm to the race than this. Oh, what a field for the prohibitionists. A few of the most bare-faced fallacies of the day may be mentioned without offence.

The electropoise is said to put the skin in such condition that oxygen readily passes through it and enters into the capillary circulation. Every chemist knows that such a state of affairs would in a few moments effect spontaneous combustion and leave the body ashes. Keeley's wonderful anti-liquor salt is said to be bichloride of gold. Chemists know that as long as gold and chlorine preserve their present valencies there can no more exist a bichloride of gold than there can a bi-pig-ate of chicken or bi-horsate of man, and so on; one can find somebody silly enough to believe any theory or fancy. There is no notice taken of the traffic by the law. It seems strange to require a druggist to register and be examined before he can dispense prescriptions, and at the same time to allow any person who chooses to dispense the same drugs when they are disguised in some mixture and patented.

Another fallacy is the inhalation of oxygen. "The inhalation of oxygen," says S. Colis Cohen, in *Hare's System of Therapeutics*, "has had more or less enthusiastic advocacy since the days of Priestly." Especially have advertising quacks in America, for the basest purposes of selfish gain, exploited oxygen and its mixture with nitrous oxide under various taking names, reaping for themselves a bountiful harvest of dollars and for death a bountiful harvest of lives. Newspaper proprietors and magazine publishers are not without responsibility in this matter, for the conscienceless scamps who prey upon the misery and the credulity of their fellows, have been quick to perceive and to avail themselves of the reading habits of the American people, and their deadly falsehoods are carried, on the covers and in the most conspicuous columns of the best and the worst journals and periodicals, into the homes of the credulous rich and cultured, as into the tenements where the credulous poor and ignorant are herded.

Physicians, as guardians of the public health, owe it as a duty to the community to denounce and expose this crime against the weak and helpless and to arouse in the consciences of the accessories a just recognition on their part of the wrong, nor should we longer shirk this plain duty because of the fear of the flippant reproach of interested motives. Should we not be interested

beyond measure in the rescue of the sick from their enemies and in the purification of the profession of healing from the stain that camp-followers and mercenaries bring upon it? In God's name, then, let us, being without reproach, have no fear of the taunts of the thoughtless and of the sordid, but lend our best endeavors to save the community from parasites more deadly than the tubercle bacillus.

As has been already stated, nothing can be too wild or chimerical for the gullable people to believe. Barnum says: "Truly the American people love to be humbugged." Thus a nickel ring on the little finger, is said to prevent and cure rheumatism. But perhaps of all the crazes which ever existed those higher-priced preparations, the ingestion of which, it is claimed, makes labor easy and robs confinement of its horror, while insuring the safety of both mother and child, are the craziest. Yet numbers of people believe it to be true and purchase the article at an exorbitant price. And this leads to mentioning a few bare facts concerning the average woman. She is not by any means confined to the poor and unlearned classes either. Two great necessities, contingent upon mere physical existence, confront every woman; by conformity to their laws she must win or lose, live or die. Nature insists upon self-preservation and preservation of the species. Moreover, she scorns to perpetuate a deteriorating type. How little the ordinary wife and mother, even in these boasted *fin-de-siecle* days, knows of the real significance of life and of those mighty forces which know no deviation; and how little she is prepared for the parts she must needs play, whether she will or no, in this fierce struggle for mere survival. If it takes three years of constant study and clinical experience to fit a man to wait upon a woman in confinement, and to faithfully discharge the few small duties nature has left undone at the time, how much longer ought it to take to fit that woman for the part she has to play in the preceding months and for the responsibility which she then assumes for life. Perhaps some of this Society's members know of women who can translate German, read French at sight and scan Latin hexameters and paint flowers, but who could not, for their lives, tell (when they had become mothers) how much clothing the baby needed nor if it was being properly fed. What all women need as a preparation for the highest function of their lives is thorough training in some fundamental principles of anatomy and physiology. Suppose the above-mentioned woman had been taught anatomy and physiology as persistently as she was Latin and perspective, would not her children have a better chance? And is it not the duty of every parent to give his children every possible advantage in this race for the survival of the fittest which we call life?

All women should be taught these things and trained to observe them. That training should begin at an early age, so that when menstruation begins it should be expected and understood. From fourteen to eighteen or twenty the young woman's training and education, in school and out, should be to-

ward physical perfection. Systematic exercise in the gymnasium and out of doors should be a daily certainty, and the full process of gestation and parturition, with the development of embryo, and the growth and needs of the infant, should be unfolded in continuous instruction. Any interference in the order of development would thus be taken in its incipency and interference with nutrition be promptly checked and righted. When women turn their attention to acquiring fitness for motherhood there will be a great decrease in the number of sick women and a marked increase of intellectual power in men. Oh, let it be soon.

Pardon this digression to come back to patent medicines. If such medication is a necessity it ought to exist, but it ought to be placed on an equal footing with other necessities, sugar, for instance. Why should not the government profit by this traffic as it does by the manufacture of sugar, or rather, why should we not pay a tariff to New England on evil things as well as on good ones? If these articles are to be thus indiscriminately employed why should not government make them subservient to its interest by taxing both those of domestic and foreign manufacture. Assuredly the lives of our citizens should be guided by their representatives from foreign enemies and domestic treachery, whether it come in the form of a bayonet, a bolus or a pill.

So much for the medicines and apparatus, now about quack doctors. Their methods are manifold and strange. One establishes institutes, advertises to treat all diseases at so much per month and furnish medicines, and has crowds of patients. Another takes quarter, half and whole-page advertisements in the newspapers, travels in a private car, heals by faith and has hundreds flock to him; he continues this for a certain length of time, then his advertising stops and he fades away—jailed for fraud. Hundreds of others advertise themselves as specialists in some form and try to see how much they can abuse honorable practitioners. They travel when they have played out. One of their favorite so-called specialties is catarrh, which they make out to be a dreaded constitutional disease quite beyond the power of the average practitioner. Their spelling, however, is generally poor outside the advertisement. Another specialty much harped on is, as the advertisements read, all irregularities of the genital system. Their advertisements frighten ignorant people into going to them or trying their specifics. They are old specialists always, have been in practice for years, guarantee a cure and consultation free.

North Carolina is not much infected with this particular species, thanks to the wise law which requires physicians to prove themselves competent before they can practice.

He is seen here, though, in two forms—one of these is the "Scientific Optician," who calls himself Professor in his advertisements, but Doctor everywhere else; who advertises to fit glasses to all eyes, and says on his card, "consultation free." He uses simple methods, can fit glasses to old people

fairly well when they have only presbyopia, but will injure the eyes of any young person for whom he prescribes and fits glasses, for the reason that he has no right to use mydriatics, and hence dares not. During the past year one of these has been going from town to town advertising himself as a doctor and an eye specialist, and publishing in the papers certificates as to his ability and being what he claimed to be, from some of this Society's most prominent members. It is needless, of course, to say that these gentlemen never gave any such certificates.

The other form is the physician who, after failing to get or keep a practice in the usual way, begins to advertise in the newspapers and get himself puffed. Sometimes he opens a sanitarium for the treatment of something special, sometimes he goes from town to town advertising himself as a specialist. In either case well-informed people scrupulously avoid him and his methods.

There arise year by year sects and schools of all sorts of empiricism. Christian science is one of those which, after a few years of existence, has just built a temple in Boston, the home of isms, at a cost of two hundred thousand dollars. They hold that man is incapable of sin, suffering and death, and that all material things may be overcome by simply exerting the will. Thus one gravely says that she awoke one morning with an abscess in the throat, which disappeared in the course of the day without opening. The chief of the sect claims to have set and kept set several broken bones by faith, although she admits that it required great faith, more than the average subject possesses.

“When Bishop Berkley said there was no matter,
And proved it, 'twas no matter what he said;
They say his system 'tis in vain to batter—
Too subtle for the airiest human head,
And yet who can believe it—I would shatter
Gladly all matters down to stone or lead,
Or adamant, to find the world a spirit,
And wear my head denying that I wear it.”

HOMŒOPATHY.

Of all the many mediæval dreams we have spoken of, there is only one whose survival challenges our attention at the present time, and this is the so-called Homœopathy or Hahnemannism. The essential doctrines of Hahnemann were three: The first of these taught that chronic disease is the result of a general poisoning of the system by a humor, which, when it finds its way to the surface, causes the itch. Microscopic investigations and the discovery of the itch insect long since gave the quietus to this theory.

The second doctrine of Homœopathy is the so-called infinitesimal doses.

This is not a simple affirmation of what every one knows to be true, namely, that certain substances are so octave in their relation with the body that the most minute quantity of them impresses it; nor is it a statement that all or any drugs in minute quantities exert an influence antagonistic to the effect which they produce when in large quantity. It does teach that a substance like chalk, which is, in large doses inert, becomes, under the influence of trituration and dilution, possessed of intensely active properties, as though there had been liberated from it a spirit of healing which had been imprisoned in its natural grossness. He also taught that the activity of a medicine depends upon the number of times it has been shaken and that medical inertness by excessive shaking might be converted into almightiness. Remembering the numbers of his followers, surely the bitterness of Carlyle seems justified when he said: "Where ten men are gathered together, there are nine fools."

It is the third doctrine which has been, and still is, the rallying point of his followers, and which is claimed to be the fundamental truth of his teachings—this is the so-called law of *similia similibus curantur*, in accordance with which a symptom produced by a disease is to be cured by a small dose of a remedy which, when given freely to a healthy man, will produce the same symptoms. This law, which has immortalized the name of Hahnemann, was really laid down by Hippocrates 2,300 years ago—it must possess some measures of truth to have survived so long. And it will sometimes lead to a good result. Let us suppose a case of vomiting. Ipecac, when given in large doses, will cause vomiting, but under certain circumstances, when given in minute quantity, it will relieve it. Witnessing such administration, the by-stander cries, "Great is *similia similibus curantur*, and Hahnemann is his prophet." But let another case appear which is increased by ipecac and relieved by opium, which does not vomit when given to the healthy man, but makes him insusceptible to the action of emetics. Now, the upholder of *dissimilia similibus curantur* cries: "Behold, I have the truth—the remedy which produces the opposite of the symptom is the remedy to relieve the symptom." It is plain that the truth lies in neither. A law of nature has no exception, and if exceptions be found to an alleged law it is plain that the law is only an allegation and not a reality. If we were to find that at times weight disappears and objects not supported fail to fall, then we would know that the Newtonian generalization of the attraction of gravity was not a law. Neither Homœopathic nor Allopathic doctrines are laws; they are mere expressions of coincidences, each of them base coin, gilded with just enough of truth to pass current with the ignorant and unwary. Symptoms are the mere surface play of disease, marking only with great uncertainty the currents, whirlpools and rocks that lie hidden far underneath. Symptoms apparently the same may be the outcome of bodily conditions differing widely. Any system of treatment based directly and immediately upon

symptoms must be untrue. It is not possible to find any therapeutic law which shall directly relate symptoms to remedies and enable the practitioner in ease and ignorance to combat disease.

In Europe the fallacy has almost played out, there being only 1,021 practitioners of Homœopathy in all Europe, by far the most of whom are in Spain, the lowest country there intellectually.

In America, and particularly in New England, it is holding its own, probably, because individualism here runs riot and we have irregularities of all kinds in religion, philanthropy and medicine.

The peculiarities of the people and the deficient qualifications of the regular profession in those States where there is no law regulating practice are other causes, but the most notorious of all is—the American Homœopath does not practice Homœopathy. This is acknowledged by the New York Homœopathic Medical Society, and has been by them repeatedly affirmed in the *New York Medical Times*. They have also proved that every one who disputed the statement was wrong, and that many physicians who denied practicing in any way except by their dogmas were really doing so every day.

In New England, the deteriorated Puritan stock is always ripe for grasping at individualism, and it is not strange that one and the same section should be the home of Homœopathy, Protection and Christian Science.

“Our little systems have their day—
They have their day and cease to be.”

CAUSES.

What are the causes of the quackery which exists in this country to-day? First, the credulity and ignorance of the mass of our people upon all subjects related to physiology and hygiene. Second, the cheapness and convenience of treating oneself without having to confide in a physician. Thirdly, the criminal recklessness with which the soulless press allows itself, for a consideration, to be made the tool and accomplice of these seekers after wealth, by giving up column after column and page after page to the advertising and puffing of their nefarious mixtures. Fourth, the giving of certificates of endorsement by persons who are supposed to be in a position above reproach. Thus, certificates of preachers are much sought after, and there are few papers which do not contain a certificate from some preacher endorsing some nostrum. Fifth, certificates from physicians, which is worst of all. Sixth, unscrupulous druggists.

The ignorance of the public in regard to matters pertaining to the body is woeful. More knowledge must be carried to them or the race will finally dwindle away to nothing. Public schools are now required to teach physiology to some little extent. It ought to stand next in importance to reading in the list of studies. When people know how to treat and care for their

bodies the necessity for medicines of all kinds will decrease. It is clearly evident that physiology and hygiene are not popular subjects with the people. Why is it? Every one will concede them to be the most important, and every one will agree that health is the most precious of all man's possessions, yet it would be almost impossible to fill a small hall with persons willing to listen to a lecture upon hygiene. The reason is that most persons have heard nothing about it till they arrive at maturity, when they theorize that, if they have lived thus far without paying attention to such a subject, they are willing to risk it the rest of the way. It is because its importance has not been impressed upon the young people—the boys and the girls.

The cheapness of these medicines as compared with the fees of a physician is a powerful argument in their favor to the uneducated mind, and the privacy is the greatest inducement, perhaps, to a certain class. A man finding himself afflicted with some trouble, or a woman annoyed by some irregularity, must of necessity feel a delicacy in confiding their ills to any one. This is, to some extent, true modesty, than which there can be no brighter virtue, but let them but begin with patent medicines from either of these motives, and in most cases they eventually fall into the doctor's hands, and that, too, with the cost, and the shock to modesty increased in direct ratio to the time spent in trying to avoid the natural consequences of wrong-doing or heredity.

The cause of all others, however, is the advertising in the newspapers. The press is the most powerful engine the sun shines on, and verily the pen is mightier than the sword. The average man of the people believes everything he sees in print, and to his mind the flaunting half-page advertisement is as true metal as the brilliant editorial. That it is wrong to allow such advertising of quack remedies no one can doubt, but the papers allow it even when they know the claims set forth are preposterous misstatements, intended only to deceive the public.

Civilization, says Donan, culminates in the power of the press and the bounds of civilization are limited by the circulation of the daily papers. There is no civilized speech nor language where their voice is not heard or their influence not felt. There is no enterprise, or business benefaction, or villainy that cannot be pushed into triumph or driven to failure by the newspapers. Great reputations are created by them out of nothingness and wrecked by them for amusement. In this country governors, senators and even presidents are made by them—often of material intended for tinkers and peddlers, base-ball players, gamblers, shysters, pickpockets and thieves.

A few weeds soaked in bilge water, or a little calomel rolled in sweetened dough, with plenty of printer's ink, will make a millionaire of any pauperistic quack in five years time, whether it is the brains, hearts, livers, lungs, kidneys or gizzards of newspaper-reading gudgeons, his humbug panacea claims to regenerate.

To say nothing of the practice of certain dailies in charging a great price for their subscription and then making one-third of their matter patent medicine advertisements, from a business standpoint. If a grocer was to make a third of his sugar sand, he would be quickly condemned; why, then, should the press be allowed to insert such vile things as the big **G** advertisements and those of tansy and pennyroyal pills in the columns which all people, refined or not, are to read. The press has unlimited influence over the minds of a great class. Their influence amounts, certainly, in this country, to power. Power has never yet been abused, but that it reacted and severely injured the abuser. There will be a reaction at some time in this case.

The practice of giving certificates as to the efficiency of these things is a field which it is difficult to clear.

Many a preacher, hard up for cash or some other object, gives a certificate to these people, which they publish. Very many preachers take the mixtures and perhaps very many are benefited at the time and give the testimonials in good faith; as to those who give them for the first mentioned cause, nothing further need be said. Those who are honest and are asked to do so, should remember that patent medicines have become an evil of the greatest magnitude, against which it is the duty of every person who wishes well to society and the race to oppose the barrier of his judgment, as well as against the numerous quacks themselves, who thus ravage the purses and constitutions of the dupes of their barefaced impositions. That when they sign such an instrument they cast their own good name and character against all honest effort, true philanthropy and the cause of science.

What can be said of the physician who so bemeans his art and judgment as to publish endorsements of these preparations? It is usually found that he either has never received a degree or that he graduated from some one horse medical school, where attendance upon two five months courses of so-called lectures was the principal requirement for graduation. This particular kind of doctor is rapidly being exterminated since the *debut* of the State examining boards except in Kentucky, where he is said to flourish still in his pristine glory.

The last cause to be noticed in this paper is the unscrupulous druggist. Druggists are at times unscrupulous. An ignorant person comes into the shop. One-half of it is filled with patent articles which yield an enormous profit. The patient states his case, the druggist recommends a nostrum, which the ignorant person purchases and retires with. Sometimes this program is varied by the purchaser asking to see a doctor, when the druggist says to him that he had better tell him what his trouble is, and, after learning it, he persuades the patient to purchase a nostrum, or else prescribes for him himself. Of course it is the height of empiricism for druggists to prescribe, and honest ones will not do so except in an emergency, when a physician cannot be had. Druggists are found who excuse their prescribing and keep-

ing quack medicines for sale on the ground that they are in the drug business to make money. Yet we find their national association passing resolutions to the effect that the drug clerks employed in the army and navy should have the rank and pay of commissioned officers. Of course men who pursue a trade simply for the money they make out of it, can never be anything but tradesmen, that is, they can never lift their trade to a higher and more honorable level, and if pharmacy is to be only a trade to make money out of, then its usefulness to the physician and the public is at an end, for the druggist is a necessity only when he serves the interests of three classes; should he neglect either of the three his usefulness decreases in exact proportion. His first care should be to protect and properly serve the patient. Next he should look to see that the physician's interest is protected, and when he has done this well, the gratitude of both physician and patient enable him to amply look after his own.

REMEDY.

And where, pray, is the remedy?

It can be expressed in one short word, and that word is education. The ancient empirics strove for many a visionary panacea. Had they employed the same effort in teaching the people what was then known of nature's laws, how much better it would be now for the race. You must see to it that the children of to-day are taught to respect, understand and care for their bodies as well as their minds, and their physiques must be cultivated and developed as carefully as their mental faculties are.

The importance of hygiene must be impressed upon the young people from the A.B.C. book through the school and high school and into the University, at which latter place it ought especially to be impressed. The study of Latin and the other dead languages and the higher mathematics are, it is true, most excellent mind-training, but none of them better than physiology, and there is no study more interesting when properly taught. And taught these things must be before the world grows much older.

When the people know as much as they can about the laws and conditions governing their bodies, the high-flown theory will not be so enthusiastically believed nor the accompanying drugs so readily swallowed.

The honorable profession of Medicine, which has throughout the ages calmly watched the rise and fall of thousands of hobby theories and nostrums, realized long ago that these things would exist just so long as the people are ignorant and credulous; therefore, through all the years honorable physicians have striven to teach man his duty to his body. Slowly year by year are their efforts being crowned with success and more and more concerning nature is being studied in the schools.

It is the duty of every well-wisher to the race to cast the weight of his influence with the right side; it is the duty of every parent to see that his children are taught these things, and it is the duty of every one who can to know them; no matter if you have lived twenty, thirty or fifty years without them, you should still find time to read on these things, and having read them to consider well.

There is no reason to believe that empiricism will ever cease. Most probably, like the gold brick swindle and the green goods fake, it will continue to be an heritage to the ignorant even from generation to generation. But as knowledge increases it will grow less; for knowledge is the only panacea.

Society Reports.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Forty-Second Annual Meeting, held in Goldsboro, May 14, 15, and 16, 1895.

SECOND DAY—AFTERNOON SESSION.

(Continued from page 294.)

Dr. A. H. Harris made his report as Chairman of the Section on Gynæcology, the paper being referred to the Committee on Publication.

Dr. Bahnson said that it has always been the policy of the Society to restrict to the utmost limit the list of honorary members. At present there are only two on the list who have not been active members of the Medical Society of North Carolina for a period of years. The Society had always tried successfully to add no one to that list who did not confer upon it an honor equal to that the Society endeavored to confer upon him. Fully recognizing that fact, he desired to move that the names of Dr. W. W. Keen, of Philadelphia, and Dr. L. McLane Tiffany, to Baltimore, be added to the list of honorary members of the North Carolina Medical Society. Adopted.

Dr. Joshua Tayloe, of Washington, Chairman of Section on Obstetrics, presented a paper on "Abortion and Its Management."

Dr. T. S. McMullan, of Hertford, read a paper entitled "The Rational Treatment of Puerperal Eclampsia."

Dr. Haigh moved that the paper be referred to the Committee on Publication, with the request that it be published. He considered it an unusually fine paper, every part of it tallying with the other—everything unnecessary seems to have been left out. It seemed to be a paper that will do good.

On account of the absence of Dr. John R. Irwin, of Charlotte, his paper on "An Obstetric Resource and Necessity" was read by title and referred to the Committee on Publication.

Dr. Francis Duffy, of Newbern, read a report of "Cases of Hypertrophic Nasal Catarrh, Treated by Electrolysis"; "Case of Malignant Tumor of Knee-Joint"; "A Case of Complex Error of Refraction of Eyes"; which were referred to the Committee on Publication.

Dr. W. H. Wakefield, of Charlotte, read a paper entitled "Corneal Ulcers."

Dr. J. C. Walton offered the following resolutions:

Resolved, That the licentiates of the Board of Medical Examiners, at its present session, be added to the list of members of this Society upon notification to the Secretary by the Treasurer of the payment of their initiation fees.

Resolved, That any physician in the State in good standing and legally qualified to practise medicine may be similarly admitted upon recommendation of two members in good standing in this Society.

This motion would involve an amendment of the Constitution and therefore discussion and action were postponed until next year.

Dr. F. H. Russell, of Wilmington, read a paper entitled "Puerperal Septic Infection—Its Prophylaxis and Treatment of Infection Through the Uterus."

On motion, the order of business was suspended and the Society went into the selection of a place of meeting for the next year.

An invitation from the Edgecombe County Medical Society to the State Society, to meet in Tarboro, was read by the Secretary.

It was moved that the next meeting be held in Winston-Salem.

A standing vote was taken, Winston-Salem receiving 29 and Tarboro 17. Winston-Salem was therefore declared to be the place of meeting of the Society in 1896.

The Society adjourned to meet at 8:30 p. m.

SECOND DAY—EVENING SESSION.

The Society was called to order at 8:30 p. m.

In a few appropriate words the President introduced the Annual Essayist, Dr. R. H. Stancell, Jr., of Margarettsville, who read his essay, entitled "Empiricism," before the citizens of Goldsboro.

The Orator of the occasion Dr. W. P. Mercer, of Elm City, was also introduced by the President, and delivered the Annual Oration, his subject being "The Cradle."

Dr. Thomas Hill, of Goldsboro, read, by request of the Society at its last meeting, a paper on "Native Materia Medica," which was instructively illustrated by stereopticon

The Society then adjourned till to-morrow morning at 9:30 a m.

THIRD DAY—MORNING SESSION.

The Society was called to order at 9:30 by the President.

On motion, the Society returned a vote of thanks to Drs. Stancell and Mercer for the essay and address.

Dr. W. S. Anderson, of Wilson, read a paper entitled "Uncontrollable Vomiting of Pregnancy." Referred.

Dr. Thomas Marshall was introduced to the Society.

Dr. Thomas Riddick, of Woodville, as Chairman of the Section on Therapeutics and Practice of Medicine, read his report, entitled "Pneumonitis in Childhood."

The Nominating Committee offered the following as their report, which was adopted:

Committee on Legislation.—A. W. Knox, K. P. Battle, Jr., J. L. Nicholson, W. H. H. Cobb.

Committee on Publication.—R. D. Jewett, W. C. Galloway, D. W. Bulluck, A. H. Harris, G. G. Thomas.

Board of Censors.—W. O. McDowell, H. H. Harris, Thomas E. Anderson

Annual Orator—H. H. Dodson.

Annual Essayist—W. P. Ivey.

Leader of Debate—H. A. Royster.

Obituary Committee.—W. J. Jones, R. D. Jewett, J. C. Montgomery.

Delegates to the American Medical Association.—R. H. Stancell, Jr., D. T. Tayloe, Oscar McMullan, H. B. Weaver, J. A. Burroughs, J. M. Faison, P. E. Hines, G. M. Bell, D. G. Caldwell, A. Cheatham.

Delegates to the Southern Surgical and Gynecological Association.—J. S. Lafferty, W. H. Bobbitt, R. A. Whittaker, D. A. Stanton, C. A. Julian, L. W. Hunter.

Delegates to the Virginia Medical Society.—W. H. Harrell, R. H. Whitehead, J. C. Walton, S. L. Montgomery, B. L. Long, N. H. Street.

Delegates to the South Carolina Medical Association.—J. C. Montgomery, T. F. Meisenheimer, J. C. Black, L. L. Sasser, A. J. Battle, John C. Blount.

Delegates to the American Public Health Association.—Albert Anderson, W. T. Pate, W. H. Lilly, A. J. Crowell.

Delegates to the North Carolina Pharmaceutical Association.—W. C. Steele, G. W. Lewis, C. M. Benton, W. C. Sanford.

Delegates to the American Pharmaceutical Association.—J. W. McGee, Jr., J. H. Marsh, Paul A. Barrier, W. D. Pemberton.

Dr. Thomas R. Marshall read a paper entitled "Scarlet Fever." Referred.

Dr. R. J. Grimes read a paper on "Dietetic Regimen in the Treatment of Disease," which was referred to the Committee on Publication.

Dr. A. B. Pierce, having to leave for home, read a paper on Phthisis Pulmonalis by title, and it was referred to the Committee on Publication.

Dr. W. E. Fitch, of Durham, read a paper entitled "Cholera Infantum." Referred.

The Obituary Committee made its report, which was referred to the Committee on Publication.

On motion, the regular order of business was suspended and the Society proceeded to the installation of officers.

Dr. Haigh and Dr. Hines were appointed to escort the incoming President to the Chair.

The retiring President thanked the Society for the honor shown him in placing him in the position of President, which is the highest honor that the Society can bestow upon a member, and handed the gavel to his successor, congratulating the Society upon the wisdom of its choice.

Dr. Payne, in accepting the insignia of office, expressed the wish that he might perform the duties involved upon him as faithfully and as creditably

as Dr. Tucker had done, and, though he accepted the position with a profound sense of unfitness, yet he desired to serve the Society as best he might.

Dr. F. Homer Arthur, of Harrell's Store, read a paper entitled "Whooping Cough." Referred.

Dr. S. J. Montague, of Winston, read a paper entitled "Therapeutic Use of Tobacco in Parasthesia, with Report of a Case of Pruritus Hiemalis."

Dr. P. B. Loftin, of Grifton, read a paper entitled "Hemorrhagic Fever." A paper, entitled "Remarks on the Treatment of Typhoid Fever," by Dr. E. F. Strickland, of Bethania, was read and referred to the Committee on Publication.

Dr. Montague moved that thanks be tendered to the people of Goldsboro for their kind reception and entertainment of the members of the Society. Carried.

Dr. R. A. Patterson read a paper entitled "Treatment of Diphtheria," which was referred.

Dr. Grimsley made a verbal report of the following case: The patient came to his office some time in June, 1892, stating that he had diarrhœa of two months standing, accompanied by pain in the lower bowel, and Dr. Grimsley diagnosed chronic diarrhœa and prescribed pepsin and bismuth, and as an injection carbolic acid. That relieved for a while, but in about two months he came back and stated that it had returned accompanied by severe pain in the bowels. The same prescription was given again, with a solution of nitrate of silver, ten grains to the pint, and he was told to take it once a week. He went on with that treatment from time to time, with only temporary relief, until the latter part of June, 1894. He was then taken with what seemed to be an acute attack of dysentery, severe pain and straining and discharge of blood and mucus. The prescription that time was three compound cathartic pills, and through the night they acted very freely and he passed this stone (which was exhibited). The evening before passing the stone he said he could detect something hard that would not come away. Since that time he has had no diarrhœa and has been well. The weight of the stone is seven drachms. There was no history of any hepatic colic. The man had always been a hard drinker all his life.

On motion, it was decided to hold the next meeting of the Society on the second Tuesday in May, 1896.

The President announced the following appointments of chairmen of sections and committees:

Section on Pathology and Microscopy.—Dr. D. M. Prince, Laurinburg

Section on Practice of Medicine.—Dr. I. W. Faison, Charlotte.

Section on Anatomy and Surgery.—Dr. J. L. Nicholson, Richlands.

Section on Materia Medica and Therapeutics.—Dr. John C. Montgomery, Charlotte.

Section on Medical Jurisprudence and State Medicine.—Dr. J. C. Walton, Reidsville.

Section on Obstetrics.—Dr. C. A. Julian, Thomasville.

Section on Gynecology.—Dr. John Blount, Washington, N. C.

Section on Chemistry and Physiology.—Dr. W. H. H. Cobb, Goldsboro.

Committee on Duffy Prize.—Dr. R. S. Young, Concord; Dr. I. M. Flippen, Thomasville; Dr. S. W. Stevenson, Mooresville.

Committee on North Carolina Medical Journal Prize.—Dr. Geo. G. Thomas, Wilmington; Dr. J. W. McNeill, Fayetteville; Dr. W. B. Crawford, Goldsboro.

It was suggested that the subjects for these prizes should be published with the Transactions.

The following is a list of names reported favorably by the Committee on Credentials:

Drs. George H. West, R. S. McGeachey, J. S. Brown, W. D. Bowen, F. H. Russell, J. C. Montgomery, W. E. Murphy, C. E. Moore, W. L. Kirkpatrick, H. A. Royster, F. W. Whitehead, W. T. Turlington, R. D. Ross, W. O. Baskerville, J. W. Saine, Joseph Dixon, B. W. Best, John Thames, John T. Strickland, J. C. Rodman, C. M. Jones, John B. Carr. For re-statement, Drs. W. H. Cobb, Jr., and F. H. Arthur.

The following resolution was unanimously adopted:

Resolved, That the Medical Society of North Carolina tender thanks to the physicians and citizens of Goldsboro for the kind and Hospitable manner in which we have been entertained while with them, and especially would we express our appreciation of the entertainment by the Graded School teachers and the ladies for their very pleasant social courtesies.

On motion, the Society adjourned, to meet in Winston-Salem on the second Tuesday in May, 1896.

J. H. TUCKER, M.D., President.

R. D. JEWETT, M.D., Secretary.

BOARD OF MEDICAL EXAMINERS OF NORTH CAROLINA.

Regular Meeting, held in Goldsboro, May 13th, *et seq.*, 1895.

The Board of Medical Examiners of the State of North Carolina met at Goldsboro Monday, May 13th, at 9 o'clock, a. m. There were present Drs. W. H. Whitehead, President, L. J. Picôt, Secretary, J. M. Hays, J. M. Baker, George W. Long, H. B. Weaver. Dr. Thos. S. Burbank reported for duty during the session.

There were 64 applicants and of these 53 were licensed and 11 refused.

Dr. Lee Cohen, of Newbern, N. C., won the Appleton prize on a grade of 97.4, and Dr. Chas. L. Minor, of Asheville, N. C., stood the next highest examination, his grade being 97.3. This will probably entitle him to a second

prize from Messrs. G. H. Harvey & Co., Saratoga Springs, N. Y. It was a noteworthy fact that the general character of the examinations was higher than ever before in the history of the Board, and a larger per cent. of applicants licensed during the past five years. The same grade of 80 per cent. was required as in former years.

An extra session of the Board will be held this summer at Asheville, N. C., due notice of which will be given in this JOURNAL.

The following is a list of licentiates: Drs. Thos. C. Gibson, Winton, Goode Cheatham, Henderson, F. L. Potts, Washington, Earl Grady, Tryon City, S. M. Crowell, Mint Hill, James L. Bullock, Greensboro, J. H. Fouts, Franklin, C. E. McCoy, Franklin, O. H. Kenan, Kenansville, A. G. Thompson, Waderville, J. H. Alston, Townesville, E. H. Brooks, Monroeton, Jasper N. Anderson, Albemarle, T. C. Walker, Randlemann, M. Olivia Ne Lon, Asheville, T. V. Goode, Cherryville, C. L. Minor, Asheville, F. D. Crim, Hot Springs, N. A. Thompson, Lumberton, W. W. Whittington, Asheville, M. P. Blair, Clover, S. C., W. H. Crowell, Poortith, R. S. Turlington, Bennettsville, S. C., C. V. Reynolds, Asheville, N. M. Gibbs, Fairfield, G. W. Presley, Charlotte, G. A. Hood, Newton Grove, T. C. Hamrick, Henrietta, J. V. Williams, Evalin, E. R. Russell, Rockingham, E. M. Brevard, Charlotte, B. F. Halsey, Roper City, N. C. Daniel, Satterwhaite, J. L. Spruill, Columbia, A. J. Eller, Reedy Branch, Stanford L. Warren (col.), Durham, L. G. Frazier, Oxford, J. C. Hammack, Walkertown, LEE COHEN, Newbern, W. S. Hay, McAvensville, M. D. Bowen (col.), Clarkton, E. L. Stamey, Morehead City, Edwin Klebs, Asheville, James M. Parrott, Kinston, W. G. Shaw, Font Col, R. P. Morehead, Lasker, F. L. Siler, Dillsboro, W. S. Jones, Goldsboro, F. H. Homes, Clinton, J. W. Rodwell, Macon, J. R. Reitzel, Pineville, E. T. Dickenson, Fremont, H. T. Aydlett, Elizabeth City,

W. H. WHITEHEAD, M.D., President.

L. J. PICOT, M.D., Secretary.

TO RENDER SPONGES ASEPTIC.—After many experiments in his laboratory, M. Meillere, Director of the Paris Academy of Medicine, gives the following method of rendering sponges aseptic: The shells and stones are first picked out by hand, then the sponges are beaten to remove sand, etc. They are then placed in a 1 to 100 solution of hydrochloric acid for four hours, and next washed and immersed in a cold solution of permanganate of potash; next follows a bath in a solution of sulphurous acid, after which they are washed until all traces of the last acid have disappeared. To preserve until needed, keep them in 5 per cent. carbolic acid, 1 to 100 bichlorid or 1 to 300 of thymol solution. To cleanse sponges which have been used once, they are washed in green soap, rinsed in warm water and carried through the treatment mentioned above. It is advisable to submit them to a bacteriologic examination before using again.—*Ex.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

The Goldsboro Session of the Board of Examiners.

We have received the report of the regular session of the Board of Examiners held at Goldsboro, and it will be found on another page of this issue. We have heard with regret and astonishment that they were persuaded to give a license to Dr. Edwin Klebs, of Asheville, without an examination. If this be true, it is a direct violation of the most liberal construction of the Medical Laws, no provision appearing which allows the conferring of honorary license, or license without examination. The opinion of the Attorney General to this Board in 1890 does not cover this

case at all. He said that the law, no doubt, allowed the Examiners a wise discretion in the matter of licensing candidates, that they were empowered to regulate the character of the questions asked and the standard of excellence which must be made to appear in order to justify the issue of a license. There were several applications made to the Board during the year 1890 for new licenses by parties who had previously been before the Board, and their licenses were of record in the proceedings of the Board. The petitioners asked for new licenses because the ones previously granted had been mislaid and they wanted renewals in order to procure registration. There appeared before

this same meeting of the Board another set of petitioners, who belonged to the second class mentioned in the registration act, namely, those who were in active practice prior to the seventh day of March, 1885. These physicians, although not licentiates, were entitled by the act to register at any time before the first day of January, 1890, provided they exhibited a diploma issued by a regular medical college prior to the seventh day of March, 1885, or made oath that they were practising medicine or surgery prior to the same date. There were in several counties men of prominence and substantial characters who had failed to register within the required time, and the Attorney General said that it was within the power of the Board to issue to these men licenses to correct the mistake they had made in not registering within the prescribed time. Clearly these two classes were deservedly licensed—the first, because having obtained a license once, and the fact being of record, they could demand a reissue of the license in the place of the one they had lost; the second, because the provisions of the law covering the cases of those physicians in practice prior to March, 1885, were of the nature of an amnesty act, and the registration was intended to make all these classes equal before the law. But the amnesty clause had a definite term of action. This term has closed, and no man, however eminent, is now supposed by the law to be licensed without an examination.

Section 3, 122 says:

"No person shall practice medicine,

"or surgery, or any of the branches thereof, nor in any case prescribe for the cure of disease, for fee or reward, unless he shall have been first licensed so to do in the manner hereinafter provided."

Section 3, 124 says:

"It shall be the duty of the said Board to examine all applicants for license, etc., and if on such examination they be found competent, to grant to each applicant a license."

These, then, are the laws and a fair statement of the cases in which it was declared the Board had discretionary power to deviate from them. It would in no wise have detracted from the fame of Dr. Klebs, or infringed upon the dignified position he has attained in the profession to have gone before the Board and submitted himself to such questions as were propounded to the other applicants for permission to prosecute (lawfully) their professional work in North Carolina. It appears, in fact, that Dr. Klebs had no wish to have the laws of the State violated for his benefit. He presented himself for examination in prescribed form—or intended to do so—being a *bona fide* citizen of the State and wishing to conform to all the laws and usages governing good citizens. There is no cause of complaint against Dr. Klebs. His ability is world-wide and co-equal with his fame. It is the unfortunate misconstruction of the laws, or rather of the powers of the Board which we most earnestly deprecate, and the unwise action that has established a precedent which, we hope, will never be followed or quoted as authority for a similar mistake.

The adjournment of the Board before they had finished the examina-

tion of the papers submitted to them was another error and without sanction of law.

Section 3, 127, after providing when and where the Board of Examiners shall assemble, says:

"And the said Board shall remain in session from day to day until all applicants who may present themselves for examination within the first five days after its meeting shall have been examined and disposed of."

We beg leave to call the attention of the Board to the fact that these candidates must not only be examined, but the result of the said examinations must have been canvassed and *disposed of* before the Board has performed its duty and can adjourn.

We have a most earnest sympathy for the workers on this Board. The labor is incessant and trying, but the duties and responsibility of the office cannot be put aside or the laws relaxed. The spirit and letter must be accurately carried out, if the proud boast of the profession of the State is to be sustained—that its laws were simple, concise and exact, and that they were obeyed. We are sure that only a reminder is necessary to recall to the gentlemen constituting the present Board the fact that great responsibilities are attached to their office and that the profession of North Carolina relies upon them to execute the laws fully and with equal justice to all who come before them.

Reviews and Book Notices.

Suggestive Therapeutics in Psychopathia Sexualis; with Especial Reference to Contrary Sexual Instinct. By Dr. A. von Schrenck-Notzing (Munich, Germany). Authorized translation from the German by Charles Gilbert Chaddock, M.D., Professor of Diseases of the Nervous System, Marion-Sims College of Medicine, St. Louis; member of the American Medico-Psychological Association, etc., etc. One volume, Royal Octavo. 325 pages. Extra cloth \$2.50 net; sheep, \$3.50 net. Sold only by subscription to the medical profession exclusively. Philadelphia: The F. A. Davis Co. Publishers, 1914 and 1916 Cherry Street.

The volume before us is a fitting companion piece to the work of von Krafft-Ebing. The subject is treated under three sections, Section I. being devoted to Sexual Hyperæsthesia; Section II, to Sexual Impotence and

Anæsthesia; and Section III. to Sexual Paræsthesia.

The author tries to find the causes for and the pathological conditions that accompany these unnatural desires, and with the citation of cases succeeds in producing a most disgusting volume, fit (?) for "the medical profession only." The treatment seems to be almost entirely by hypnotism

Transactions of the Antiseptic Club. Reported by Albert Abrams, a member of the San Francisco Profession. Illustrated. Octavo; cloth; 205 pages. Price \$1.75. E. B. Treat, 5 Cooper Union, N. Y.; 1895.

This volume is intended to amuse its readers. It is a burlesque on the

use of antiseptics. Parts of it are well laden with risible absurdities well calculated to entertain one

during a few idle moments, when the weary mind refuses heavier food.

Abstracts.

EXPERIMENTAL MALARIA.—The following conclusions have been drawn from an extensive article by Di Mattei (*Archiv für Hygiene*, Bd. xxii. Heft 3). Malarial infection can be brought about in men by both intravenous and subcutaneous injection. In the latter case not less than 2 c.cm. of blood should be injected. The time of incubation varies, but is usually between ten and fourteen days. Tertian, quartan and irregular fevers are due to three different parasites, and the injection of blood containing one variety reproduces the type of the primary case, and with similar organisms in the blood. Inoculation from cases of mixed infection produces correspondingly atypical diseases. If the organisms of one type are injected into the body of a person with a fever of different type, the course of the disease may be changed.

Inoculation with the blood of a malarial man cannot reproduce the disease in a lower animal; all kinds of animals, including monkeys, having been tried. The parasites found by Danilewsky in birds, and claimed by him to be identical with human malarial protozoa, have analogies with the latter, but are essentially different from them. They cannot be grown in the human body; they do not produce similar changes; they are not affected by quinine or arsenic.—*Am. Jour. Med. Sci.*

ON THE DIAGNOSIS OF RUPTURE OF THE INTESTINE.—Brendt states (*Deutsche Zeitschrift für Chirurgie*, 39 B., 5 u. 6 Heft) that after a contusion of the abdomen the following conditions may be taken as indicative of rupture of the intestine:

1. The absence of liver-dullness (Moritz).

2. Frequent and uncontrollable vomiting.

3. The appearance of peritonitis, if lesions of the kidney, bladder, liver and spleen can be excluded.

4. Spontaneous pain in the abdomen is not of itself of much diagnostic value.

Regarding the advisability of operating in these cases, the author says:

1. If there is unmistakable evidence of rupture of the intestine, immediate laparotomy is indicated.

2. Exploratory laparotomy after contusion of the abdomen is usually to be avoided; in uncertain cases, expectant treatment should be adopted (Moty).

3. If soon after the injury (twenty-four to thirty hours) there are signs of sepsis, operation is contraindicated. A low temperature with marked constitutional symptoms is an especially unfavorable condition.

4. Rapidity and delicacy are essential in operating for rupture of the intestine, especially if peritonitis is present. Therefore, a long abdomi-

nal incision, rapid, systematic examination of the intestine, avoiding rough tearing or handling; if possible to avoid it, do not resect the intestine; employ simple Lembert sutures, or at most a wedge-shaped resection of the injured portion of intestine, and close with a simple running suture, including the muscular and serous coats. Flushing the abdominal cavity with antiseptic liquids is to be avoided.

—*Ibid.*

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THE ETIOLOGY AND TREATMENT OF INFLAMMATIONS OF THE UTERINE APPENDAGES.—Dr. Augustin H. Goelet, of New York, read a paper on this subject at the recent meeting of the American Medical Association at Baltimore, in which he stated that the contention was not that these inflammations of the tubes and ovaries can always be cured, but that it is frequently possible, and, unless immediate operative interference is absolutely demanded, the patient should be given the chance, and the attempt should be made before submitting her to a radical operation. This he thought particularly important, since treatment directed toward attaining this end did not militate against a subsequent operation for their removal should it become necessary; but, on the contrary, improved the chances of an ultimate successful result. He called attention to the fact that, when once removed, these organs cannot be replaced, and, asked the question if it was not a serious error, in the light of recent developments in the etiology and pathology of the inflammations of the appendages, to remove these organs without previous attempt at a cure or removal of the

cause which may be operating to maintain such condition.

It may be denied that diseased tubes and ovaries are removed unnecessarily, but it must be admitted that they are too often removed for disease which is amenable to patient and persistent treatment, or which may be cured by a minor surgical operation, involving no risk, such as curettage or repair of a lacerated cervix.

If these cases are submitted to careful treatment, instituted for the purpose of clearing up the surrounding exudation and favoring drainage through the natural channel (the uterus), in many instances the necessity for a radical operation would be removed, and the woman would be restored to a life of usefulness and happiness.

In corroboration of these views, he reported 12 selected cases which had come to him from other gynecologists, who believed that removal of the diseased organs was the only method to be adopted for restoration of their health, yet these patients recovered completely without the loss of these organs.

The writer stated that these were not the only cases with such an unfavorable outlook which he had been able to cure in this manner, but they had been selected from among a number of others because they had consulted other gynecologists before they came under his observation.

THE USE OF CHLORINE IN THE TREATMENT OF TYPHOID FEVER.—Wilcox (*N. Y. Med. Record*) In a paper read before the Medical Society of the State of New York, Dr. Wilcox calls attention to the value of chlorine

in the treatment of typhoid fever. Experience, he says, has shown that it can be taken in quantity sufficient to be antiseptic, and stimulant to certain organs, without producing injurious effects. It stimulates respiration and the heart's action, and notably increases the flow of saliva and the bile. By its action on the kidneys it assists in the more rapid elimination of toxins. In typhoid fever, the use of chlorine in moderate doses lowers the temperature, calms nervous disturbance, cleans the tongue, improves digestion and has a favorable action on the intestinal ulceration. The writer uses one to four fluidrachms of chlorine water every two to four hours.—*Int. Med. Magazine.*

TREATMENT OF BONE AND JOINT TUBERCULOSIS.—Neuber (*Archiv für klinische Chirurgie.*) The author reports fifteen cases, of which fourteen are cured and one remains under treatment. In eight there was primary union, in four cases secondary union without suppuration, while in two cases there was a slight amount of pus. These results were obtained by the use of a ten per cent. glycerin emulsion of iodoform, which the author used for its well-known specific

action in tuberculous cases. The author opens the joints, removes all fungous, tuberculous masses and necrosed tissues, washes out all the pus, removes necrotic bone and sequestrs, and then pours over the entire tuberculous area a ten per cent. iodoform glycerin emulsion. After the joint has been opened and the diseased tissues removed, he unites the joint capsule by a buried suture, the superficial tissues by an ordinary interrupted suture; the wound is not drained but firmly closed. Over the wound he lays a small amount of iodoform gauze held in place by adhesive plaster, and afterwards a dressing, to hold the joint firmly in a fixed position. The cases, so far, include elbow, ankle, foot and hip-joints. When a joint is only partially involved, after opening it, he puts into the sound portion a tampon of iodoform gauze; when all diseased tissues have been removed, he washes out the wound, removes the gauze and floods the whole cavity with iodoform emulsion, closing the wound by means of buried and superficial sutures without damage. The use of the same method in the treatment of other wounds he has found of value in securing primary union.—*Ibid.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From May 30, 1895, to June 12, 1895:

Maus, Major Louis M., is granted leave of absence for one month and twenty days, to take effect on or about August 10, 1895.

Gardner, Capt. Edwin F., Assistant Surgeon, is relieved from duty as Attending Surgeon and Examiner of Recruits in Boston, Massachusetts, and will report in person to Col. Chas. H. Alden, Assistant Surgeon General, president of the examining board appointed to meet in Washington City, for examination by the board as to his fitness for promotion, and,

upon conclusion of his examination, will report for duty at Fort Grant, Arizona.

Perley, Capt. Harry O., Assistant Surgeon, will report in person to Col. Chas. H. Alden, Assistant Surgeon General, president of the examining board appointed to meet in Washington City, at such time as he may be required by the board for examination as to his fitness for promotion, and, upon conclusion of his examination to return to his proper station.

Richard, Captain Charles Assistant Surgeon, is relieved from duty at the United States Military Prison, Fort Leavenworth, Kansas, to take effect June 30, 1895, and will proceed to comply with the order for him to take station at St. Louis, Missouri.

Town, Col. Francis L., Assistant Surgeon General, is granted leave of absence for two months, to take effect about July 1, 1895.

Ebert, Capt. Rudolph G.—So much of the order as directs Capt. Rudolph G. Ebert, Assistant Surgeon, to report in person to the Commanding Officer at Fort Columbus, New York, for duty at that post, is amended to direct him to report for duty at Vancouver Barracks, Washington, relieving Captain William H. Arthur, Assistant Surgeon.

Captain Arthur, on being thus relieved, will report for duty at Fort Columbus, New York.

Wilcox, Major Timothy E., Surgeon U. S. Army, is granted leave of absence for one month and fifteen days, to take effect on his arrival in New York City, en route to his station in the Department of the East.

Promotions.

To be Assistant Surgeons with the rank of Captain after five years service, June 6, 1895:

1st Lieutenant Frank R. Keefer, Assistant Surgeon. 1st Lieutenant Thomas U. Raymond, Assistant Surgeon. 1st Lieutenant Henry D. Snyder, Assistant Surgeon. 1st Lieutenant Allen M. Smith, Assistant Surgeon. 1st Lieutenant Ashton B. Heyl, Assistant Surgeon. 1st Lieutenant Joseph T. Clarke, Assistant Surgeon.

THE NAVY.

For the week ending June 8, 1895:

Gardner, J. E., Surgeon, detached from Naval Station New London, Conn., and wait orders to sea duty.

Biddle, Clement, P. A. Surgeon, detached from Naval Hospital Chelsea, Massachusetts, and to Naval Station New London, Conn.

Rogers, Franklin, Surgeon, detached from U. S. R. S. "Wabash" and to the Navy Yard Boston, Mass.

Neilson, J. L., Surgeon, detached from Navy Yard Boston, Mass., and to the U. S. R. S. "Wabash."

QUESTIONS SUBMITTED BY THE BOARD OF MEDICAL EXAMINERS OF THE STATE OF NORTH CAROLINA.

Goldsboro, May 13, 14, 15 and 16, 1895.

DISEASES OF WOMEN AND CHILDREN.

J. M. Baker, M.D.

1. Describe the ovary.
2. Describe the normal position of the uterus, the factors which influence

it and the varieties of pathological displacements of the same.

3. What are the symptoms, physical signs and treatment of laceration of the cervix?

4. Give the symptoms, physical

signs and differential diagnosis of large fibroids of the uterus.

5. Give the diagnosis and treatment of para-metritis.

6. Define retro-pharyngeal abscess and give the symptoms and treatment.

7. Define acute meningitis and give the pathology and treatment.

8. Give the differential diagnosis of scarlet fever, measles, roseola and variola.

9. Describe scabies and give treatment.

10. Give the origin, symptoms and treatment of tape-worm.

PRACTICE OF MEDICINE.

J. M. Hays, M.D.

1. What is the difference between Deodorants and Disinfectants? Give examples of each with method of application.

2. What is Atheroma? What organs are principally affected by this condition, and how?

3. What is the period of incubation in Measles? The initial symptoms? How long after latter before eruption appears? Diagnosis?

4. Give symptomatology of Simple Continued Fever, and state in detail the diagnostic differences between it and fevers of malarial or typhoid origin.

5. Give treatment of Quinsy in its various stages.

6. Give causes, symptoms and treatment of Facial Paralysis.

7. Give cause and treatment of Nephritic Colic. From what is it to be distinguished, and how?

8. What affections of the heart are due primarily to Rheumatism?

9. What are the symptoms of An-

tero-lateral Sclerosis and Locomotor Ataxia respectively?

10. Give symptoms and treatment of Chronic Gastritis. Write out in full two prescriptions for same.

SURGERY.

W. H. Whitehead, M.D.

1. Define (a) Ganglion; (b) Arthritis; (c) Lipoma.

2. Give pathology of Tetanus. Treatment for Epididymitis and Balanitis.

3. Name Tumors most frequently found in the breast. Differentiate malignant from non-malignant.

4. Give symptoms of Ulcer of the Rectum. Name varieties of Fistula in Ano.

5. Define (a) Blepharitis; (b) Ectropion; (c) Adenitis.

6. Name varieties of Gangrene. Give pathology and treatment for Anthrax.

7. What are the causes of retention of Urine? Name varieties and treatment for Hemorrhages.

8. What is Erysipelas? How prevented? How treated?

9. Give diagnostic signs of (a) Aneurism; (b) Hectic Fever.

10. Name the inflammatory diseases of the Bones. Give treatment for Potts' Disease.

ANATOMY.

Thos. S. Burbank, M.D.

1. Describe the Axis or Second Cervical Vertebra.

2. Give origin, foramen of exit and distribution of Third Pair of Cranial Nerves.

3. Name Extensor Muscles of Tarsus; give origin and Insertion.

4. Give relations of Appendix Vermiformis and Cæcum.

5. Name coverings of Oblique Inguinal Hernia.

6. Name branches of External Carotid Artery.

7. Describe the Knee-Joint—Bones, Ligaments and Synovial Membrane.

8. Give relations of Femoral Artery in Scarpia's Triangle.

9. Describe the Brachial Plexus.

10. What structures would you divide in amputating the leg at upper third?

MATERIA MEDICA AND THERAPEUTICS.

L. J. Picôt, M.D.

1. Define difference between Heart Tonics and Heart Sedatives and illustrate by mention of several of each.

2. Give symptoms and treatment of Digitalis Poisoning.

3. Give symptoms and treatment of Cocaine Poisoning, naming maximum hypodermic dose.

4. What is the therapeutic use of the Hydrated Sesquioxide of Iron?

5. Give the therapy of the Night Sweats of Phthisis, naming the Anhydrotics particularly.

6. What are Galactigogues and Galactifuges? Name several.

7. Give symptoms and treatment of Bromism.

8. Explain why Potassium Iodide and Mercuric Bichloride are chemically incompatible but not therapeutically so.

9. Give dose and therapeutic uses of Tincture of Strophanthus.

10. What is the dose of Tr. Convallaria Majalis and its therapeutic uses. Give therapy of Argyria. Give dose of Arseniate of Iron.

Miscellaneous Items.

Dr. Carl Thiersch died at his home in Leipsic April 28th, 1895. He was seventy-three years of age. Born in Munich, April 20th, 1822, he studied medicine there and also in Berlin, Vienna and Paris. His name is associated with the method of skin-grafting by wide strips of skin.

Dr. Howard A. Kelly thinks it is coarse to speak of a woman as "a female." "A female is not a woman, but a cow, a mare or any animal of the female sex."

MARRIED.—Dr. Thomas Wright, of Salisbury, was married on the afternoon of June 19th, to Miss Gussie Eliot Coulter, of Newton, N. C.

May long life and much happiness be their lot.

The following is the health report of Wilmington for May, 1895:

Mortuary:

	Whites.	Col.	Total.
Population.....	9,000	13,000	22,000
Total deaths.....	13	24	37
Annual death rate represented.....	17.3	22.1	20.2

Meteorological:

Mean temperature, 68°; highest temperature, 96°, on 31st; lowest temperature, 47°, on 15th; total precipitation, 4.37 inches.

UNIVERSITY OF PENNSYLVANIA.—This worthy Institution has just been

made the recipient of a munificent gift of \$500,000 from Provost Charles C. Harrison, in memory of his father, the late philanthropist, George Leib Harrison. The fund is for the establishment of a foundation, to be known as the "George L. Harrison Founda-

tion for the Encouragement of Liberal Studies and the Advancement of Knowledge." A short time before the University received a bequest of a like sum from the late Edward A. W. Hunter, to endow a department of clinical surgery.

Reading Notices.

THE USES OF ARISTOL.—Among the agents for the treatment of wounds which modern synthetic chemistry has placed at the disposal of the physician, Aristol can justly lay claim to a prominent position. Aside from its employment as a wound-dressing, however, it has been extensively utilized in affections of the skin, in diseases of the nose and throat, in ophthalmology, otology, etc. The "Brit. Med. Jour." March 9th, 1895, contains an abstract of an interesting article by Geavert ("Flandre Medicales, Feb. 21, 1895) in which this author gives his experience of the use of Aristol. He says:

"Aristol, which is an iodine derivative of thymol, is a reddish inodorous powder, insoluble in water and glycerine, little soluble in alcohol, but soluble in ether and fatty oils. It has been used with success by Eichhoff in cases of psoriasis, lupus, parasitic cutaneous affections and tertiary ulcerations. In lupus it is said to have given good results and even to have a specific action on tubercle bacillus and the micrococcus tetrangenus. Its insolubility renders its use limited to the same extent as iodoform, over which it has the advantage of producing no toxic effects. It can be used as an ointment of 10 per cent. strength, made with olive oil and vaseline. Geavert has used it with

good effect in lupus combined with curetting and quotes a severe case which he treated in this way which healed in five weeks, and has remained healed ten years afterwards. He also recommends it in suppurating bony cavities, and in otorrhœa with large perforations of tympanic membrane. In cases of otorrhœa with small perforations it is dangerous from the liability to block up the perforation and cause accumulation of pus in the middle ear. It is also recommended in burns."

CHRONIC RHEUMATISM.—The two following formulas will be found very serviceable:

[1]

Stearns' Cascara Aromatic, $\frac{3}{4}$ fl. oz.
Sodium Salicylate . . . 160 gr.
Fluid Extract Manaca . . $\frac{3}{4}$ fl. oz.
Simple Elixir, q. s. ad. . . 4 fl. oz.

Mix. Sig: Dose, $\frac{1}{2}$ to 2 teaspoonfuls three times a day.

[2]

Elixir Manaca and Salicylate,
(Stearns') 3 fl. oz.
Stearns' Cascara Aromatic, . 1 fl. oz.

Mix. Sig: Dose, 1 to 2 teaspoonfuls three times a day.

J. W. Snowden, M.D., A.E., San Jose, California, on April 12th, 1895, writes: "Your Bromidia acts like a charm. I believe it a safe, effectual and reliable Hypnotic."

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No. 1.

Original Communications.

ANNUAL DEBATE—THE ABUSE OF ALCOHOLIC STIMULANTS IN PRACTICE.

BY A. A. KENT, M.D., Lenoir, N. C.

MR. PRESIDENT AND GENTLEMEN:—As your appointed Leader of Debate, in offering for your consideration and discussion a paper on the subject announced in our programme, I recognize fully the fact that there are two sides to this subject. If I did not deem it a subject upon which we entertain different and very positive theoretical views by which we are guided in practice, I would not have considered it a fit subject to offer you for discussion. No doubt some of you will see the subject in a very different light from my own. I hope those gentlemen who do, and also those who agree with me, will not hesitate to express their views in the discussion which, I trust, will follow the reading of this paper. I am here to receive instruction as well as to give you the benefit of my own ideas. It may be that we will all modify our views by a frank exchange of opinion.

I am well aware that alcohol in some form has long been the stimulant mostly relied upon in the practice of medicine—that it is a generally accepted doctrine that alcohol is a stimulant to the digestion, a cardiac tonic, a conservator of tissue, capable of increasing and sustaining the vital energy, and therefore indispensable in the treatment of all low grades of disease, shock, collapse, etc. But there have been many accepted doctrines in the history of medicine that have proven to be fallacious. Many long-used remedies have been dropped and forgotten, their places being supplied by other and better agents.

I began the practice of medicine with the popular belief that in all low forms of disease alcohol was the all-safe, all-potent, and only stimulant to be used. Experience has taught me a different lesson, and the more experience I have, the stronger my convictions grow that this too general and too exces-

sive use of alcohol as a stimulant in practice is erroneous. With experience our ideas change. They will change. And "many pet theories which we to-day look upon as being the very foundation-stones upon which our noble profession rests will crumble to dust." Many of our cherished idols have fallen and humanity has always been the benefactor. I do not claim to be in advance, but only following the lead of others—only in harmony with the tendency of the medical profession of the day. With our improved therapeutics alcohol is justly losing ground as a medical agent. Strychnine, nitroglycerine, digitalis, caffeine and others are found to be more reliable, more powerful and less harmful agents. The more these remedies are used the more they grow in favor and the less is the necessity for the use of alcoholics.

For a long time alcohol has been, and even at the present time is, the only stimulant administered by the general practitioner. It appears to be the only stimulant at his command with which he is at all familiar. Notwithstanding its many pernicious effects in the human economy, if there be heart-failure he gives alcohol; in profound coma, alcohol; in chloroform narcosis, alcohol; in feeble digestion, alcohol; in flagging nerve-force, alcohol; in threatened exhaustion from post-partum hæmorrhage, alcohol; during the crisis in pneumonia, alcohol; in the exhaustion of typhoid fever, alcohol; in every critical condition, where the patient is vibrating between life and death, alcohol is his first and only thought. Not content with this reckless use of a bad agent, like the man who took his dram first to get ahead of the snake-bite, he must needs forestall all these expected evils by the early use of alcoholic stimulants in almost every case of sickness. I respectfully assert that this frequent and excessive use of alcohol in practice is not needed. Even where a stimulant is indicated, we have other more reliable stimulants that are free from any of the hurtful influences that alcoholics exert.

It is in typhoid fever that alcohol is, perhaps, most used; and for that reason it is here that it likewise does its greatest amount of harm. With our advanced knowledge of the specific nature of typhoid fever and of the use of specific remedies in combating it, few cases properly managed will need any stimulant whatever. It is claimed first, for alcohol in this disease, that it stimulates the function of digestion. I grant that a very small quantity, not more than one teaspoonful at a dose, may aid digestion. But this is far below the quantity usually employed in fevers, one-half to one ounce of whiskey or brandy every two or three hours being usually given. This quantity materially interferes with, or entirely arrests, the process of digestion by precipitating the pepsin, the natural ferment of the gastric juice. Strength can only be supported for any considerable length of time by food, and by this excessive use of alcohol we deprive the patient of this all-important support, without which he cannot long be sustained. But further, alcohol flushes the capillaries of the stomach just as it does those of the skin. Where there is already a smouldering congestion of the mucous coat of the stomach,

it takes but little to light up the fire of acute inflammation. The continued use of such quantities as are given in low fevers often produces this complication. Many patients that are making a feeble, yet hopeful, struggle for life, are thus deprived of natural food; and as they grow weaker and weaker, this mistaken conservator of strength is still pushed, in quantity and frequency, till the congestion and then gastritis are added to more severely tax the already failing vitality. If alcohol had no other hurtful effect, because of this alone it should never be given in such quantities as are prescribed in low fevers, such as typhoid. It was this interference with digestion and frequent production of gastritis that caused me to discard it in low fevers.

Its doubtful physiological action and harmful effects have only just begun when it has destroyed the power of digestion and produced a most serious complication in the form of gastritis. As evidence of its doubtful and even hurtful utility, I quote from Ringer's Therapeutics.

"The following rules," he says, "regarding the use of stimulants in fever were laid down by Dr. Armstrong, and will receive the assent of all practical men":

"1. If the tongue become more dry and baked, alcoholic stimulants generally do harm; if it become moist, they do good.

"2. If the pulse become quicker, they do harm; if it become slower, they do good.

"3. If the skin become hot and parched, they do harm; if it become more comfortably moist, they do good.

"4. If the breathing become more hurried, they do harm; if it become more and more tranquil, they do good."

He says further: "These excellent rules might be supplemented by a fifth—Alcohol does good when it produces sleep and quiets delirium." On the other hand, as Bartholow says: "Does harm when it increases fever, exaggerates delirium and induces coma vigil."

Here we have a complete set of rules for our guidance laid down by our best medical authors. Was ever a set of rules more replete with uncertainty or more suggestive of harm? You are not assured of the certainty of any single physiological action. In every case you are just as liable to kill as to cure your patient, and in no case are you told which it is going to do till you have tried it. Would you risk *your* life, or even your money, upon such doubtful security? Is it right to jeopardize the life of your patient with such an unreliable remedy, fraught with so many chances of peril? You can never know till you have tried it just what it is going to do—whether it is going to send your patient up or down. The time lost in the trial may be the turning point for the worse in his fate. We have all seen cases in which a day passed meant recovery or the contrary. In such extremities it is not safe to be experimenting with a doubtful stimulant. Or, worse yet, the downward impulse given by some untoward action of this uncertain agent,

when given on trial, often puts the patient beyond the hope of recovery. Even when the action is beneficial at one or more points, it is often doing irreparable mischief in some other equally vital parts. It may be stimulating the digestion, but it is also accelerating the heart's action, increasing the fever and greatly increasing the expenditure of vital energy, producing the very exhaustion that the doctor is endeavoring to guard against. If it is slowing the pulse and relaxing the arterial tension, it is also arresting digestion, producing congestion and inflammation of the mucous coat of the stomach. Hence, I say, if it is doing good at one point it is doing mischief, may be insidiously, at some other equally vital point. It is in these cases of low fevers that the doctor is called upon to make his hardest and best fight for the life of his patient. It is not good military tactics to go into the battle with only such doubtful weapons in his hands. He has to do battle with a foe that taxes and often defies every resource at his command—what folly to leave in doubt the action or potency of the ammunition! Why reduce the chances of success by having in your hands only an untrustworthy weapon!

But what should we do? The answer is simple and easy. Use specific remedies for specific purposes. When a food is needed use a food pure and simple. If the digestion must be aided, use dilute muriatic acid and pure scale pepsin, enough to peptonize the amount of food that should be given. If an antipyretic be needed, use the sponge, the bath or other antipyretic properly fortified; for alcohol short of lethal doses never reduces the temperature more than 0.4 or 0.6 of a degree. If the heart's action must be slowed and strengthened, use a heart tonic *per se*—use digitalis. If a powerful nerve stimulant be needed to spur the flagging energies, to maintain the heart's action, to sustain the respiration, to revitalize the failing senses, use strychnine. It will not fail you, will not cripple your prostrate patient in some unexpected way, will rescue him from the very "shadow of the valley of death" as no other remedy can do it.

One of the common and most dangerous uses of alcohol as a stimulant is during hæmorrhage. It is customary when hæmorrhage occurs, either by accident or in the process of disease, to administer whiskey or brandy under the false idea of supporting the vital powers. I desire to condemn this practice with all the emphasis in my power. In every form of hæmorrhage, where the bleeding has not been arrested as by ligature, alcohol only increases the danger by increasing the hæmorrhage. Alcohol relaxes the arterial tension and at the same time increases the force and frequency of the heart's action. It destroys the contractile power of the middle muscular coat of the arteries, preventing this natural means of arresting the flow from the several blood-vessels, and also by increasing the heart's action sends a greater and more rapidly flowing volume of blood to the severed vessels, thus washing out and preventing the formation of a clot, the most effective possible check upon the

flow. If a stimulant must be used, it should be one that increases the arterial tension at the same time that it increases the heart's action. The argument does not stop here. The action of alcohol being such as to contra-indicate its use where hæmorrhage already exists, the same physiological action maintains where hæmorrhage is likely to occur, and for the very same reasons it is contra-indicated there. This abuse is most common in typhoid fever where hæmorrhage from the bowels is a frequent and dangerous complication. When the arterial walls are weakened at certain points by ulceration, their contractile power lost, admitting of over-distention, the arterial resistance to the force of the heart's action lost, allowing the entire force of the volume of blood sent from the heart to be exerted upon the weakened points, rupture and hæmorrhage must of necessity be more liable to happen. Alcoholics being in such general use in typhoid fever, who can say how many cases of hæmorrhage may or may not be due to alcohol alone? We are certain of the fact that where hæmorrhage is liable to occur the use of alcohol increases that liability. The complication is such a grave one that the necessity for alcohol, and for alcohol alone, should be most urgent to justify its use. Since we have other stimulants that can perform all of its good offices without any of the bad, its use is all the more unwarranted. Such agents we have in digitalis and strychnine, which strengthen the heart-beats and at the same time increase the arterial tension.

The too general use of artificial stimulants in pulmonary diseases is abusive mainly because we have other better stimulants. It has perhaps done much good in this field, but its too general use is doubtful. In pulmonary phthisis, during all the long years that alcohol ranked among the best remedies, the mortality steadily kept up to 100 per cent. It is only since we have learned of other remedies that we hear of a percentage of cures. I can do no better here than to quote from Dr. T. J. Keys, Professor of Diseases of the Chest, Philadelphia Polyclinic, on the use of strychnine in these diseases. He says: "This drug gives better practical results in the treatment of pulmonary diseases than any other single remedy at our command. It has a more powerful stimulating influence over the nervous system than any other drug in the materia medica. Besides its general action it has a special influence on the nerve supply of the lungs, heart, stomach and intestines. It has also the faculty of multiplying the corpuscular elements of the blood. A combination of such properties makes it apparent why it should possess such beneficial therapeutic effect in the diseases under consideration. Bronchitis, whether acute or chronic, is much benefited by strychnia. It checks the cough, diminishes the expectoration, improves the appetite, puts to one side the whole constitutional relaxation and feebleness present, especially in the chronic form of the disease. It is one of the most useful agents in the treatment of acute pneumonia. I know of no disease more eminently benefited by strychnia than pulmonary consumption." This authority is so high and the facts

set forth so explicit, that no commentation on my part is needed. I only ask of you to try strychnine in the place of alcohol in all pulmonary diseases, and thus be convinced.

In shock alcohol is a valuable remedy, meeting well the indications. But for convenience of administration and in cases of profound shock, where whiskey or brandy could not be swallowed, strychnine hypodermically at once suggests itself. "Its action is analogous to electricity. It discharges its force into the system in a manner similar to electricity." "If shock be severe and collapse threatened, strychnine takes the first rank. It should be given in large doses, not less than $\frac{1}{30}$ grain, and repeated several times, at short intervals, if needed."

In chloroform narcosis due credit must again be given to alcohol. But I must earnestly advise against its use as a preventive of chloroform narcosis, where the anæsthesia is to be continued for a considerable time. The secondary action of alcohol is similar to the action of chloroform, and where the anæsthetic is to be continued for some time the secondary effect of the alcohol might come on and only deepen the chloroform narcosis. The dictum of Dr. Stephen Smith, an eminent surgeon—"Send your patient to the operating table drunk"—is certainly abusive use of alcohol, rife with danger and to be condemned. Even here strychnine, given hypodermically as a preventive or in the emergency, is more powerful, more convenient of administration and safer.

The same is true of strychnine in threatened collapse from any cause. It is the most powerful cardiac and respiratory stimulant. Being readily given hypodermatically, it acts promptly, and can be given when whiskey or brandy cannot be ingested. The more generally it becomes used, the more confidence we have in its use, and the wider its range of usefulness expands. In small doses it is a most valuable tonic in many atonic conditions. In larger doses it gently stimulates the flagging forces of nature when they threaten cessation of action, renewing and sustaining the vital energies in the most severe wasting diseases, in a manner more in harmony with nature than any other agent. In heroic doses, next to electricity, it is our most powerful vital incitant, invaluable in warding off and overcoming shock, collapse and chloroform narcosis. Like the electric flash, that kills at a single stroke, it is equally potent for good when used in proper limits. Just as the electric motor is destined to supplant the steam engine as a motor-power in the world of mechanics, strychnine will take the place of alcohol as a stimulant in the medical world—not entirely, not all at once, but none the less surely.

References:

- (1) Bartholow, *Materia Med.*; (2) Ringer's *Therapeutics*; (3) Bartholow, *Materia Med.*; (4) Ringer's *Therapeutics*; (5) *Col. and Clin. Record*, Nov. 1893; (6) *Dosimet Med. Rev.*, Dec., 1894; (7) Geiger, *Int. Journal Surg.*, Nov., 1894; (8) N. S. Davis, M.D., *Brief*, Nov., 1891; (9) *The Asclepiad*, Vol. viii., Nov. 29, 1891; (10) Editorial in *Int. Jour. Surg.*, Nov., 1894.

DISCUSSION.

Dr. ——— said that the stimulation of alcohol is indicated in hemorrhage of the viscera, hemorrhage of the lungs, etc. We give it in cases of pulmonary phthisis for several reasons—for a stimulant and for food. We can take a specimen and place it in alcohol and so preserve it. In the same way the alcohol in the veins helps the tissues from putrefaction. When the pulse is very weak, he knew of nothing that would act like whiskey, given at regular intervals.

Dr. Hill said that all remedies are abused, and that the true physician should use whatever he found to benefit his patient. Dr. Wood, in his work on materia medica and therapeutics, says that alcohol furnishes nutriment by promoting digestion and by oxidation counteracts tissue waste of the patient. He had practiced physics for some time in Missouri and there was a great deal of pneumonia and the people used alcohol in such cases "externally, internally and eternally." While there he used the whiskey treatment in connection with alcohol, but since coming to North Carolina he had treated altogether with whiskey in cases of pneumonia, and successfully. He believed that as long as he found alcohol useful to him he should use it.

Dr. Bahnson rose to express the thanks of the Society for the paper. He differed from the gentleman in many of his conclusions, though he gave due weight to the authorities cited. He had no doubt, as Dr. Hill had said, that alcohol had been a very good remedy and that it should not be discarded until we are sure of a better. In this connection he asked to relate an incident of his boyhood: He was in an audience listening to a temperance lecture, when the speaker said: "Show me the man who has reached the three-score-and-ten years who has used alcohol continuously," and paused. An old gentleman by him, who hadn't drawn a sober breath for years, rose up and said: "Eighty-five," and sat down. He intended that to illustrate the fact that circumstances alter cases—the physician must adapt his treatment to the necessity of the individual patient—no cast-iron rules can be laid down.

By the way, he said that he could recognize no difference between peripheral vessels in supplying the lungs and the external organs. It seemed to him that pulmonary vessels would be the better name for those designated. He regarded strychnine as a very good stimulant. He usually gave one-twentieth of a grain for a dose and thought that was nothing to shrink from.

Dr. Sikes expressed his co-operation with Dr. Kent in his ideas. It did not seem to him that the doctor had annihilated the use of alcohol altogether, but he did think with Dr. Kent that when one thing was found to act better than another that it should be used and the change made. Dr. Kent claimed that digitalis and strychnine do the work that has formerly been done by alcohol, and Dr. Sikes could only say that all they had to do was to try it.

He did not believe that any drug had been more abused in the use in pneumonia than alcohol. For himself he could treat it as well without alcohol as with it. In typhoid fever for some years he had almost entirely abandoned the use of alcohol, because he could get better results without it. You will be sure never to find a better remedy unless you try others. He believed that the time was rapidly coming when the use of alcohol will be reduced.

Dr. Faison thanked Dr. Kent, and said that he would be glad if there was not a drop of whiskey on the face of the earth. He had never relied upon whiskey in pneumonia. Dr. Kent had not mentioned one heart tonic which he considered very important; he had never seen a patient brought out more quickly than by a hypodermic injection of morphine. He rarely ever used alcohol in digestive troubles. As to strychnine, he heartily agreed with what Dr. Bahnson had said. He did not believe that any man had ever died for the want of whiskey, but he had seen many who died from the effect of it. He was glad that Dr. Kent was on the right road, and reiterated what he had stated before, that if he had the right and power he would put alcohol from off the earth.

Dr. Herring joined with Dr. Kent and Dr. Faison in their opinion concerning the use of alcohol. He never used it unless he did not know what else to do. At one time he gave a quart of whiskey to a young woman twenty-four years old, for weakness, and she got well, whether from the effect of the alcohol or in spite of it, he knew not. She was insane from the effect of a severe case of diphtheria when he saw her, and whiskey was given because he didn't know what else to give. A man who uses it dies a miserable death sometimes. He asked the young men to lay a veto down against wine, whiskey and brandy. He treated pneumonia without it entirely, but found the best effect from opium. He told of a case in which he gave opium instead of whiskey and put the patient to sleep, and, upon waking, he began to improve. He used morphine and quinine. Whiskey is destructive to the constitution of man.

Dr. Riddick was satisfied that whiskey was one of the most necessary stimulants in the world, and he frequently used it. He also favored the use of strychnine, always having good results.

Dr. Kent closed the discussion, saying that he had been much gratified by the discussion, as he had felt the importance of the selection of the subject for the discussion. During ten years of his practice he had relied solely upon alcohol as a stimulant, but had never had satisfactory results, and he had found in strychnine a valuable substitute. He used whiskey until he found it doing mischief, and then he would substitute strychnine. He now used strychnine almost entirely. He appealed to the members of the Society that they at least try strychnine and decide for themselves.

UNCONTROLLABLE VOMITING OF PREGNANCY.

BY W. S. ANDERSON, M.D., Wilson, N. C.

Of all the afflictions of the human family, there is perhaps none so universal as nausea and vomiting, to some degree, during pregnancy. While some escape, and even enjoy better health than at any other time, a large majority suffer more or less.

My object in presenting this paper, Mr. President and gentlemen of the Society, is not so much to advance some new theory or new remedy for this dreadful malady, but to call attention to and emphasize some of the old ones, and, if possible, provoke discussion on the subject that may do us all good. For of all the diseases we as medical men are called upon to treat, I know of none which makes one feel more helpless than the uncontrollable vomiting of pregnancy. Day after day we persist in our treatment, going from one favorite remedy to another, only to meet with disappointment and utter failure. Time nor space will allow me to discuss this trouble in all of its different phases in detail, but I hope to touch on some of the most important points and impress upon us as guardians of the health and happiness of our patrons, the importance of our duty in the premises.

Then, what is the cause of sick stomach of pregnancy, and what is the best treatment for it, and how may we diagnose and treat it in the ordinary form, to prevent its becoming extraordinary and uncontrollable? Of course the first cause is pregnancy, which produces more or less organic and functional modification of the whole system, especially the nervous system.

Then there may be an erosion, a displacement, an inflammation of the uterine tissue or ovary, stricture or hyperæsthesia of the internal os, or a diseased ovum, and in addition to these causes which bear an intimate relation to pregnancy, vomiting due to some functional or organic trouble of the stomach. One or more of these causes may operate with the first cause, and if not checked bring on uncontrollable vomiting.

In this, as in every other disease we are called upon to treat, it is all-important that we make an early and a correct diagnosis, which at first thought would seem extremely easy, but Guinot has rightly shown that it includes three very distinct factors:

1. The diagnosis of pregnancy.
2. The diagnosis of any lesion, malposition or inflammation of os, neck, ovum, womb or ovary.
3. The differential diagnosis between obstinate vomiting due to pregnancy or some one of the above enumerated causes, and that due to some other

cause independent of gestation. A correct diagnosis, made early in the disease, before the second stage is reached, will in many cases enable us to cut short the disease. But if we fail to detect the exciting cause and apply the proper treatment early and the disease reaches well the second stage, the prognosis will almost surely be unfavorable. When we come to consider the treatment for this dreadful disease, we must remember that, so far as the pathological anatomy is concerned, the lesions in the stomach are negative or diverse in character. It is true that the muscles and adipose tissue have been found atrophied and the intestines decreased in size, with occasional softening and injection of the mucous membrane of the stomach; as to the muscles and fat, they would suffer the same from want of nourishment from any other cause, and the lesions found in the stomach are not sufficient of themselves to cause death; yet, if the vomiting is not checked, the woman will surely die. The multiplicity of remedies recommended by different writers only prove their small value and uncertain action. One of the mistakes we are most liable to make when first called to these cases is the prescribing of a general course of medicines and neglecting or putting off a thorough examination of the womb and its appendages. While the former is important and healthful in the treatment, the latter is more so. The unwillingness of most women to submit to an examination causes the practitioner to put off till later what ought to be attended to early in the disease. I wish to impress this upon every one who has not learned the importance of an early examination in these troubles, not to delay too long what ought to be done at once; for I believe in every case where the symptoms become obstinate after a round or so of the usual remedies have been given for the liver and stomach without benefit, a careful examination will reveal some inflammation of the womb or its appendages, malposition, a constricted neck, a diseased ovum or pressure upon some nerve which excites the reflex vomiting; for the vomiting must be in great part reflex, since the pathological anatomy does not, in a large majority of cases, indicate any organic trouble of the stomach, and one of the grandest proofs of this is that very often the symptoms will disappear suddenly. Then, in my judgment, the first thing to do is to find the exciting cause and remove it. If it is a malposition, replace and hold it in position with a tampon of cotton or wool until it can hold itself in position. If there is an erosion, cure it, and if there is stricture of the neck and internal os, dilate it either with the finger or steel dilator, being careful always not to go beyond the internal os. Upon careful examination, if erosions, inflammations of all kinds of the womb and its appendages, stricture of the neck and malpositions be excluded, our conclusions must be a diseased ovum, and abortion should be practiced as soon as all the above causes have been excluded if the symptoms persist; and right here is considered the nice point, as to when abortion should be brought on; certainly it should not be delayed till the life of the patient is endangered by the operation.

If the above is true, and the cause or causes be sought out and removed early, I doubt whether we would have any cases of uncontrollable vomiting of pregnancy. I have had two very bad cases within the past few years, both primiparas. The first one I did not see till the second stage was well advanced. The womb was well down in the pelvis to the left side, with the fundus craned to the right with some flexion at the neck. The attending physician informed me that he, with a medical friend, had dilated the os with no benefit. I at once suggested the tampon, to which he objected, and for three or four days we continued medication. At the end of this time, however, I was asked to take charge of the case. I at once put the woman in the knee-chest position and introduced a tampon of several pieces of cotton balled up, the first piece flat, wet with glycerine. She felt relieved and for one day seemed much better, but the womb was so heavy, and the vagina at that time was quite red and dotted with diphtheritic membrane, the tampon could not be put in sufficiently strong to hold it up. At this time she was very restless and weak. I gave her opiates and various other anodynes, but the application of electricity, one electrode to the womb and the other passed up and down the spine, gave her more relief than anything else. She complained of being very tired, and said the electricity rested her. But her strength by this time was well-nigh exhausted and death soon closed the scene.

My second case was last year. This case drifted along as they usually do, the symptoms gradually growing worse and putting off from time to time the first and all-important thing—a thorough examination of the womb, when at last she consented, I found an abundant glairy, tenacious discharge from the neck, which was inflamed and swollen, with considerable congestion of the vagina and right ovary tender. I cauterized the neck with the solid stick of nitrate of silver, and applied a tampon wet with boroglyceride and alum. The first application gave her some relief, and after the third the relief was so great she consented for me to go to Greensboro, where this Society was then in session.

She remained in a fair condition until a few days after my return, when all the symptoms returned, exaggerated, if possible. When the family wanted consultation, I continued the caustic applications and nourished her with predigested foods per rectum.

Dr. Whitehead was called in and endorsed the treatment, adding oxide of silver, which, I think, did some good; and from that time on she continued to improve, and at full term was delivered of a fine girl baby.

DISCUSSION.

Dr. McMullan was impressed with the fact that the doctor attributed the trouble to pregnancy. Of course all know that the vomiting of pregnancy is reflex in character. It is due to the sympathetic connection of the uterus

and stomach. His treatment was to cut off that connection, and that was the treatment he should prescribe. Under no circumstances would he suggest that an examination be made. The prescription is bromide of potassium or sodium, and as it is harmless in character, he did not hesitate to keep the patient under its influence. When the uterus becomes sufficiently enlarged the vomiting passes away. Of course, when that treatment fails, he would cast about for other causes and look for the cause the doctor has described. Bromide of potassium has given better results for him than any other remedy he had ever used.

Dr. Booth wanted to say a word in regard to medical treatment of vomiting in pregnancy. So far as he knew the causes of these obstetric troubles was the primiperal condition. As a rule in this day and time our girls are not properly developed. The uterus is not fully developed until impregnation takes place, and it has to attempt to develop with the effort at dilation. There is a hard surface that will not give way, and there is nothing the matter with the stomach. That is nonsense, the cause is reflex action. He uses oxalate of cerium. The old dose was two grains, but as a rule, two grains will not do any good. The old dispensary tells us not to give too much. He was called to a lady several months ago who had been sick for weeks. He prescribed five grains for her. The other doctor had been giving her two grains. She never had any nausea after that, and was out in a day or two.

The next case after that was a little red-headed woman, very nervous, and he tried the same drug. It did no good and he gave her forty grains of bromide of potash and twenty grains of chloral hydrate. In a day or two she was well.

In another case the bromide treatment would keep her quiet and comfortable for a while, and then it would return. On examining her he found the uterus jammed down against the posterior wall of the vagina, and lifted it up, and she had no more sick stomach. This thing is a reflex trouble and sometimes it can be stopped by cutting off the telegraphic connection, if there is not some trouble with the uterus. The thing is to find out where the trouble is and to try to relieve that trouble.

Dr. McDowell wanted to endorse what Dr. McMullan had said with reference to the use of potassium bromide. Frequent doses of bromide of potassium often accomplished the desired effect. In regard to digestive ferments, he did not suppose that any physician ever gave digestive ferments with any idea that there was especially a disease of the stomach, but all know that there is some length of time between the ingestion of food and the vomiting. It is not long enough for digestion to take place by the ordinary process, the digestive ferments having been given with the idea of assisting digestion so that a sufficient quantity of food may be absorbed before vomiting occurred, in order to keep up the nutrition of the patient until the period of nausea was passed. Ordinarily that passes about the close of the third month. With this end in view, he thought that the digestive ferments had done, and

still do, a great deal of good. It frequently occurs that the digestive fluid of the stomach is changed by the condition. It may need an assistant, and pepsin and pancreatic fluid may be used. Sometimes these do not help the matter. He had seen the vomiting begin on the first day and keep up till the day the child was born. Nutrition was kept up almost entirely by the use of digestive ferments, and she took enough nutrition to keep her in good condition throughout the period.

Dr. Hines said that the difficulty to him was getting anything to remain on the stomach. In one case, which lasted about a month, nearly everything that he prepared relieved the patient the first day and she was all right, but the next day it returned. One very remarkable case which he should report was a woman who had been bed-ridden for months. She had the most irritable stomach he had ever seen; she could not retain laudanum and starch. He did not make any vaginal examination, but thought his associate had. She could not take anything by stomach or rectum. The only thing she took in three weeks was a little tea. She was nourished by the external application of lard and was kept alive for three weeks with that treatment. She recovered from the nausea and had better health than she had had for years and went on to the full term without the least difficulty. He had never seen one die from vomiting in pregnancy. It is a local disease and requires local treatment. He should insist on an examination, and should treat the disease locally.

Dr. Haigh knew of no more disappointing case that comes to the charge of physicians, and none that gives more trouble, and where they are more in the dark with regard to the exact treatment of the case, than this trouble of vomiting in pregnancy—there are so many points to be looked at. There is particularly one which is to be guarded against, and it is so difficult to tell when you have arrived at that point, that it keeps you under a constant strain when you feel that the life of the patient is gradually ebbing away, and cannot see when exactly to step in and use the heroic treatment by putting an end to the pregnancy. The cause of this trouble undoubtedly lies in the condition and upon the influences exerted upon the nerves by this condition. The treatment must lie along that line that the doctor has said in cutting off this connection. Sometimes it can be done in one way, sometimes in another. If the system can ever be gotten under control, so that the local remedies can be used, little difficulty would be found in controlling the one by first giving a hypodermic of morphine. That will for a moment quiet the stomach. It will relax, to a certain extent, the os; it will render less irritable the rectum, so that chloral can be used by enema, and that was one of the best remedies that he had ever used in such cases. He gave an enema of thirty grains of chloral and retained by pressure for a half hour, and it seemed to him to act more promptly than any remedy that he had ever used, except the dilatation of the os. But there are times when none of these

remedies act as it is expected, and the final resort is to emptying the uterus and relieving the system of the real cause of the trouble, which is the pregnancy, and that seemed to him the great difficult point to determine, at what time to interfere and put an end at once to the whole cause of the trouble. He thought that often physicians wait too long and the patient is lost. So that he should advise the interference as soon as it is found that the remedies are not having the proper effect and the patient is gradually going down-hill. The womb should be emptied by dilatation. He attempted to use the cocaine and was very badly frightened. The first time he ever gave a dose of cocaine he gave $\frac{1}{10}$ of a grain and thought the patient was certainly gone. It is a dangerous remedy to use in a case like that; he should not attempt it again.

Dr. Anderson had not expected to say all that could be said in a paper of ten minutes, but so far as he knew it covered the ground as to treatment of these troubles. Of course, all the remedies that are recommended should be used to assist in the digestive process. The nourishment of the patient has to be kept up as much as possible. In his case last summer the stomach became so irritable it would not take in anything, and he nourished her by beef peptinoid powder in the rectum and stopped putting anything in her stomach for two or three days. She said that in a half hour after she would take one of these injections she would feel like she had eaten a meal, and pretty soon after he began to make the caustic applications through the neck and she began to improve. Up to that time he had used everything he could think of and everything that the books and journals had ever said would do any good. He believed, as it seemed that all did, that the cause lay in the womb or about it, and that there is the place to go to permanently relieve the patient. And after these applications have been made and all remedies tried then, as Dr. Haigh had said, it is time to go to the ovum and take out the cause.

DEATH UNDER NITROUS OXIDE GAS DUE TO TIGHT-LACING.—More than one fatality from tight-lacing has recently been noticed in our columns (*Lancet*). In all conditions in which free respiration becomes a necessity, if the vital processes are to be carried on, tight-lacing means death. Of all states that in which a patient takes an anesthetic is the one when absolute freedom of breathing is a necessity. Unhappily, but few know this elementary fact in physiology, and hence the sad death of a girl who had taken nitrous oxide gas at a dentist's rooms, and, while recovering from its influence, had a fatal attack of syncope. The statement is made that her stays were five inches too small for her natural body, a disparity of shape which, we imagine, the dentist might have seen and acted upon before he ventured to give the unfortunate girl nitrous oxide gas.—*Ex.*

Society Reports.

NORTH CAROLINA BOARD OF HEALTH.

Conjoint Session with the North Carolina Medical Society May 15th, 1895, at
Goldsboro, N. C.

The Conjoint Session was called to order at 12 o'clock by the President, Dr. Geo. G. Thomas, of Wilmington.

The President stated that the expiration of the terms of Dr. W. H. Harrell, of Williamston, and Dr. John Whitehead, of Salisbury, made it necessary to go into an election for members to fill their places.

Dr. W. H. Harrell, of Williamston, and Dr. John Whitehead, of Salisbury, were unanimously elected to succeed themselves in office.

Dr. R. H. Lewis, the Secretary, read his report.

Dr. Haigh said that in his section of country there had been a great deal of interest taken in sanitation, and especially in regard to the supply of water. Of late years the malarial cases had assumed a more serious form, that of hemorrhagic fever. The simple driven pump is not having the full effect expected, that is, not giving freedom from surface water. He wished all the information he could get upon the subject. He had never seen the people take more interest in matters coming from the State Board of Health. He was sure that the profession would help the Board in every way in distributing these tracts.

Dr. Booth was glad that the Board was holding meetings round through the State, and he thought that the Board was doing a great work.

The report of the Secretary was received.

Dr. Geo. H. West presented, through the Secretary, a paper on the "Influence of Water on Malarial Fever." It was read by title and referred.

The Secretary stated that Dr. West reported his experience as a physician to the convict camps on the Roanoke river. He had found a marked difference in the amount of malaria caused from the driven pump and the open well. The desire is to get through the impervious layer of marl and clay; but he had found the malaria very much diminished about 25 or 30 feet deep, but not through the marl or clay. He reported a letter he had gotten from Dr. Whitaker, the County Superintendent of Jones county, of Trenton. Dr. Whitaker said in his letter that Trenton was situated on a ridge, with the river on one side and a mill-pond on the other. The people on the ridge rarely ever suffered from malarial troubles, but there was one well on the slope—the people who drank from it suffered very much from malarial diseases. The dam of the pond broke in the spring and was not repaired until the following fall, and the bottom of that pond lay exposed to the suns of summer on the South side of the town during the entire season, and there was no increase whatever in the amount of malaria in the town. Dr. Whit-

aker himself and others fished in the little pools without the slightest hesitation and never had any malarial fever. He said that afterwards something got the matter with the mill and the owner turned off the water in order to repair his mill, and the consequence was deep indignation on the part of the people of Trenton; but, instead of an increase in the amount of malaria during that August and September, if there was any difference at all, there was less than there was before.

The President reported a series of cases from Jacksonville, N. C., bearing upon this question. The town is practically enclosed by New River; it is in Onslow county. On the point of this peninsula is situated a large saw-milling plant. These patients (all young men), having been warned of the dangers, had used Apollinaris and other bottled spring waters. All of the water was absolutely protected, but they had frequent and severe attacks of malaria. He suggested to these young men that, in addition to the care they exercised, they insist upon their cook boiling every day the water used in cooking their food that came from a well outside 140 feet deep. It went down through the mud layer and the layer of sand and layer of clay. So far the experiment of boiling the water has done very well. One of the young gentlemen has had an occasional outbreak of malaria. There has been no sign of an outbreak since the boiling began.

Dr. O. McMullan said that he had read Dr. Lewis' pamphlet. His experience ran back some twelve years or more in the eastern part of the country, and it went to show that malarial troubles were greatly diminished in 1884 and 1885, when there were very little. Frequently through whole years only four or five cases are heard of. The people all improved when the open wells and springs were first substituted by driven pumps; but the chills are all coming back again. In the year 1893 there was a decided change, and in the spring the people all over the country began to have chills. He thought that there must be some fallacy in the theory that the water was the cause of the chills and fever.

Dr. Sikes wished to corroborate what had just been said. In the year 1882 nearly everybody in the hill country had chills. Then they had no more chills, except a few up and down the border of a swamp, until 1894. They did not have any pumps nor make any change, drinking the same water and exposed to the same causes all the time. Chills come in his country by epidemics.

Dr. Duffy did not wish to detract anything from the importance of a good supply of drinking water, but he did wish to say something in favor of bad air as a possible cause. He related the history of a set of cases that fell under his observation last year. At a place five miles from Newbern, known as Fay's Mill, the pond had become dry and had been so for several years. A stream of water ran through the bed. A family lived there on the verge of that mill-pond and drank from a spring that ran from a rock. That was

the only water they used, and the most malignant case of malarial fever that he saw during that year was in that family. One patient was totally unconscious from having convulsions. Fortunately, he had a supply of Sharp & Dohme's bimuriate of quinine for hypodermic injection, and he recovered. There were a number of cases in that family. While he did not think that the importance of good wells could be exaggerated, still he thought that an eye ought to be kept on bad air also.

Dr. Lewis said that those who had read his pamphlet would bear in mind that he did not commit himself entirely to the water theory, but at the same time it was written from the point of view of an advocate, and that he had deliberately overlooked, so far as he could, any evidence on the other side. He did it because, if the people were given any avenue of escape they would take it, and he left out a good deal of evidence on purpose.

He was surprised to note that the word cistern had been left entirely out of the discussion. He was a stronger advocate of the cistern than of the driven well, but failing the cistern, he advocated the driven well.

Dr. Lewis was asked if he thought the malarial germ could go seventy-five or eighty feet below the surface.

He said he believed it not impossible for the germ to go down the side of the pipe.

Dr. Pate said that there are other things about the well beside malarial poison. The old bucket and the old sweep system are very frequently the cause of the infection of the water by typhoid fever and other germs. It was almost impossible to get a wash-woman who would not go and wash the poison from her hands into the well by handling the chain or pole after they had been infected by the soiled clothes. He was sure that he had seen cases of typhoid fever arising from that source, and he recommended the bored well to prevent that infection as well as others.

Dr. Haigh asked about the reports of health from the different counties. The death-rates of several small places had been so high that they attracted his attention, and he asked if there was any special cause?

Dr. Lewis, in answering, read the reports and explained that the death-rates appearing monthly in the *Bulletin* were merely temporary. Many of the returns were worthless on account of the town authorities not taking proper care to render the reports accurate. In one town there are some 3,500 negroes, and months and months will pass without a single death of a negro reported. That is because the regulations in regard to reports of deaths are not carried out. The only way to make the statistics accurate is not to allow a dead body to be removed until a death certificate has been signed by a physician or a magistrate. A report under 12 per cent. he considered worthless.

The President did not consider the statistics as worth anything, but could see no way at present to enforce the laws. Many valuable points could be

brought out in a very simple certificate. It ought to cover, not only the age and race, but the place of birth and how long the person had resided in the place of his death. It would affect the sanitary history of a town very materially. A person coming to a town and dying in a month of something contracted before, affects the death-rate of a town and its sanitary history very injuriously.

That brings up another very important subject—that of acclimatization of foreigners. In looking over the deaths from yellow fever he had noticed that Germans died more rapidly than any others. A great many people died of so-called bilious fever of the type in Wood's Practice.

Dr. Guiteras, in studying the nature of the fevers of the South, believed some of these were cases of yellow fever unrecognized, and he says that a large portion of the proof is based upon the fact that newly arrived emigrants died of it.

The Conjoint Session then adjourned.

GEO. GILLET THOMAS, M.D., President.

RICHARD H. LEWIS, M.D. Secretary.

LACTIC ACID IN EPITHELIOMA OF FACE.—Dr. Bloom (*Jour. of Cutan. and Gen.-Urin. Dis.*) reports the case of an extensive epithelioma treated with lactic acid. After abandoning the suggestions of operation, curetting and caustics which naturally presented themselves, he remembered the claim of Von Mosetig Moorhof for lactic acid in cancer. He had used it without good result in a former case, but believing the application then was faulty, determined to try it again. The treatment consisted of pure lactic acid and silicic acid made into a paste and applied. It was probably about fifty to sixty per cent. strength. The first application was made, and I saw the patient again at the end of the week. He said that he suffered very little pain, much less than what he had been led to expect. We then increased the strength, making the paste more fluid, and applied it, which caused some pain, but at no time was the pain very severe. This paste was applied faithfully once a day. The surface of the sore commenced to granulate, the walls broke down like magic, and it almost seems like exaggeration when I say that the result was a perfectly clean cicatrix. The patient was discharged January 2, 1895, from all further observation, and there is a perfectly clean cicatrix about the size of a penny; it is smooth and somewhat reddish, of course, but the smoothness and non-elevation are characteristics to which I would call your particular attention. I speak of the case because that method of application, so far as I know, has not been in practice here. Six or seven weeks from the first application the man has got entirely well. The result was absolutely perfect. I hope this will stimulate others to put the method into use, and I believe they will have similar results.—*Medical Review.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

Exit Index Medicus.

It is with much regret we note the fact that the publishers have been forced to terminate the existence of this very useful publication. Mr. Geo. S. Davis took charge of the *Index* in 1885, and ever since that time there has been an annual deficit of from \$500 to \$1,000, which Mr. Davis has had to bear. The deficit has been growing lately, however, and a few months since an appeal was made to the profession to come to the support of the publisher. Mr. Davis generously offered to continue the publication if the deficit could be reduced to \$500, being willing to make that contribution to the cause of science,

but after an organized effort to increase the subscription list, it was seen that the shortage for 1895 would amount to about \$2,000, and Mr. Davis felt obliged to discontinue the publication.

In the words of one of the leading journals of the country, "The suspension of this most valuable periodical is a national misfortune; it is moreover a disgrace to the medical profession of the country." The *Index* filled a place of truly great importance to the medical writer, and will be sorely missed. In view of its failure there is little probability that another effort will soon be made to establish such a record of the published work of the profession, and in

the interim these data will be scattered and lost sight of. The suspension of this valuable work is truly a national misfortune and a blow to the pride and patriotism of the American profession.

The Wilmington City Hospital.

The report of the Superintendent of this Institution, Dr. W. W. Lane, for the past year shows that the record of the Hospital has kept up to that of former years. There has been no increase in the number of beds, but there has been a very satisfactory increase in the number of patients, both pay and charity. The former come largely from the neighboring counties and from South Carolina.

There were admitted for treatment 202 charity patients, with 12 deaths, and 68 pay patients, with 3 deaths. The Superintendent recommends some improvements which should be made at once—in fact, should have been provided long since. The heating of the Institution should be by steam, and after the first outlay this system would be found to be but little, if any, more expensive than the present, and would give far more comfort to the patients. An ambulance is one of the things asked for, and should be provided at once. We are pleased to see a general appearance of improvement in various directions about the Institution, as it shows that the aim of the Superintendent and of the Board of Managers is upward.

Reviews and Book Notices.

The Year Book of Treatment for 1895. A Critical Review for Practitioners of Medicine and Surgery. Twenty-three Contributors. Cloth; octavo; pp. 490. Lea Brothers & Co., Philadelphia; 1895.

To glean from the great mass of medical literature for a year that which is of value is a task as laborious as it is difficult. This the author has tried to do in this eleventh issue of the Year Book.

The whole range of general and special diseases is gone over and new ideas of treatment, as advanced by various writers in different parts of the world, is noted. Of course in so small a volume all that is good has not been included, nor, on the other

hand, has all that will prove of little value been eliminated, but, taken on the whole, the work will prove of much value in suggesting lines of treatment where one is put to his trumps by some especially tough case.

The book is illustrated where necessary to elucidate the text.

A Manual of the Modern Theory and Technique of Surgical Asepsis. By Carl Beck, M.D., Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik of New York City. With sixty five illustrations in text and twelve full-page plates. W. B. Saunders, Philadelphia, 1895. Cloth. Price \$1.25.

In issuing his New Aid Series, of which the present volume is one, Mr.

Saunders has struck the happy medium between the compend and the text-book. These little volumes will prove of much value, not only to the student, who desires to run over rapidly what he has learned in the more pretentious text-books, but to the practicing physician as well, when he desires to refresh his mind on certain branches.

The volume before us is clearly written and gives with emphatic detail the points necessary for obtaining and maintaining asepsis. It includes a section on laboratory technique, and is about the most satisfactory book on the subject of asepsis that has come to our notice.

Subscribe for this JOURNAL—\$2.00.

Correspondence.

Editor N. C. Med. Journal:

I take pleasure in announcing that The G. H. Harvey Co., Manufacturers of Drugs, Chemicals and Surgical Instruments, of Saratoga Springs, N. Y., generously offer a second annual prize to the applicant making the next highest grade before the Board of Medical Examiners. The prize to be awarded is a case of handsome design and durable finish filled

with pills and tablets of their manufacture. This case will be a valuable acquisition to any young man who begins the practice of medicine.

This year the prize will be given to Dr. Charles L. Minor, of Asheville, who was $\frac{1}{2}$ behind Dr. Lee Cohen, winner of the Appleton Prize on a grade of 974.

L. J. Picôt, M.D.

Littleton, N. C., June, 15, 1895.

Abstracts.

THE NATURE OF SO-CALLED FOLLICULAR TONSILLITIS AND ITS RELATION TO INFECTIOUS DISORDERS.—Dr. Norris Wolfenden (*Jour. Laryn. Rhinology and Otology*), after reviewing Socolowski's anatomical and histological studies of common hypertrophy of the tonsils, of chronic follicular tonsillitis in which one or more cheesy masses may usually be expressed from the crypts, and of the acute process which frequently is engrafted on the previously existing chronic follicular disease (designated by the

cumbrous term *tonsillitis lacunaris chronica desquamativa exacerbata*), proceeds to a consideration of "acute cryptic tonsillitis," termed by Socolowski *tonsillitis lacunaris pseudo-membranacea*, which answers to Bosworth's "croupous tonsillitis," and which is the "angina follicularis" of the preceding abstract.

The association of various micro-organisms in different forms of this disease is described as in Dr. Sendziak's paper, and, following Bulloche, an attempt is made toward a clinical

differentiation between the staphylococcal and streptococcal forms which Sendziak was unable to do:

Staphylococcal Throat.—False membranes, soft, slightly adherent, grey-yellow color. Fever, pain and swelling of submaxillary glands. The disease runs a sharp course and recovery is accomplished in less than six days. If suppurations occur, they have a tendency to remain localized.

Streptococcal Throat.—Sudden, sharp fever, with or without a rigor, but possibly coming on insidiously. False membranes appear on a tonsil, then invade the palatine pillars and uvula so as to cover them like the fingers of a glove—a sign supposed formerly to be distinctive of diphtheria. Membranes whitey-grey, adherent, surrounding surfaces more inflamed than in diphtheria, although the membranes are less elastic and more friable. Enlargement of the submaxillary glands, swelling of the face, coryza; in severe forms rapidly increasing prostration, high temperature and albuminuria. Death may occur. Loeffler bacilli absent. Lesions of visceral organs may follow, e. g., endocarditis, swelling of joints, orchitis, ovaritis, enlargement of the spleen, etc. It seems to be a question of the activity of the streptococci; when they are few and develop but little, we have a purely localized process, but when they develop rapidly we have a breaking-down of the resistance of the tonsil and a general invasion of the system.

Pneumococcal Throat.—The symptoms are less definite; only two cases observed. Sudden attack, with rigors

and pronounced fever and exhaustion. Membrane on the tonsils and uvula; œdema of the neck. Only the Fraenkel-Talamon pneumococcus was present. Pneumonia may accompany or follow this form of angina (Rendu). "It has been proved that the pneumococcus may produce suppurations in various parts of the body, pleuritis, meningitis, ulcerative endocarditis, otitis, etc., in patients who have never at any time suffered from pneumonia."—*Medicine.*

OCCIPITO-POSTERIOR POSITIONS.—Dr. Van Peyma, Buffalo, concludes an article on this subject as follows (*Buffalo Med. and Surg. Jour.*): In conclusion, I wish to emphasize the vital importance of recognizing the position in vertex presentations; to insist that, as a rule, cases of occipito-posterior position should be left for the natural forces to effect delivery—forces which, in the vast majority of cases, are not only entirely adequate, but in these cases will accomplish the object better than the most skilled instrumental or manual interference. Further, I desire to maintain that flexion is essential to natural rotation; that rotation is frequently delayed until the head is very low; that the character of the pains is a very important factor; that with complete anæsthesia the mobility of the head, even when deep in the excavation, is often quite surprising; that in occipito-posterior position the blades of the forceps must be applied well forward to insure a firm hold; and that, after the head reaches the perineum, extreme flexion must be obtained until the occiput has passed

over the perineum; and lastly, that no hard and fast rules can be formulated to cover all cases, but that much must necessarily be left to the judgment of the operator, based on a consideration of all the conditions involved.—*Can. Prac.*

FISTULA IN ANO.—In doing a radical operation for fistula the following points, according to Dr. J. H. Bacon (*No. West. Med. Jour.*), should be observed:

1. Never sever the sphincters at more than one place at the same operation, no matter what the complications may be, otherwise incontinence is sure to follow.

2. Unless all the channels followed up and laid open the operation will fail of its purpose.

3. Fistula resulting from tubercular abscess must not be operated upon if there is sufficient tissue destruction of lung to produce hectic, fever, sweats, etc., unless the fistula is causing severe painful spasms of the sphincters, then it should be divided at any stage.

4. After laying the fistula tract open the wound must be made to heal from the bottom, and as the cutaneous or mucous side of the wound is better nourished, it will throw out a more healthy granulation, that tends to bridge over and close the slower granular surface at the bottom, thus leaving a fistula remaining.

5. When the fistulous tract is not too complicated it should be dissected out entire and the wound brought together, beginning at the bottom with continuous catgut sutures and approximating the surfaces in succes-

sive layers until the whole wound is closed.

TREATMENT OF TUBERCULOUS AFFECTIONS OF THE KNEE-JOINT.—Dr. Horace Manchester Brown (*Int. Med. Mag.*) thus sums up the points in the treatment of these affections:

1. That tuberculous disease of the knee-joint calls for treatment, the principle upon which that treatment depends being the same as that for any other condition in any part of the body in which there is existing as an exciting cause a microbic infection which is capable of producing either local or general retrograde metamorphosis of tissue.

2. It is also essential that the general condition of the patient in this disease should receive the most careful attention, inasmuch as the tendency of the disease, affecting, as it does, the largest joint synovial surface in the body, is towards rapid production of general sepsis and also rapid diminution of general resistance to septic infection.

3. That, while the contents of the knee-joint after perforation from a caseous focus in the epiphysis of the femur is not true pus, but, on the contrary, broken-down tissue containing tuberculous matter, there may at any time take place an infection of the joint from the development of staphylococci or streptococci, which may produce a general septicæmia.

4. All hope of successful treatment with the idea of preventing retrograde metamorphosis of tissue after a tuberculous infection has taken place in the bone will depend upon extremely early diagnosis, operations, rest and improvement of the hygienic conditions.

5. All pus collections, whersoever they may form as the result of infection of tuberculous material with pus cocci, should be evacuated, drained, disinfected and curetted.

6. Early operation is indicated upon tuberculous abscesses occurring in the ends of the bones, and suspicion should be attached to any continued pain in the epiphyseal region in children after injury, which does not disappear after a few weeks of rest.

7. Immobilization of the knee, but not by means of plaster dressings, is indicated in all suspicious cases of osteitis occurring in the neighborhood of the joint.

8. An attempt should always be made to bring about progressive metamorphosis of tissue by injections of iodoform emulsions, either in glycerin or ether, when the progress of the disease has not been so great as to indicate that the intrascapular tissues are entirely destroyed.

9. Arthrectomy and arthrotomy are contra-indicated in cases where excessive emaciation and extreme anæmia, or the occurrence of foci of tuberculous disease in distant organs, indicate that there is a general condition of tuberculosis.

10. Arthrectomy or orthrotomy is indicated when the disease seems to be limited to the joint or the pericapsular tissues, and when the patient's condition is such that it is safe to believe that the shock of the operation can be withstood. Great care is to be exercised in attempting to break up an ankylosis, lest the disease, not

entirely eradicated, be started anew, or new fractures be produced.

11. Amputation is indicated when the disease shows no tendency to local improvement, and the progress of the disease is rapid and manageable, as in the liquefying form of tuberculosis.

OBSERVATIONS ON THE INFLUENCE OF INSOMNIA.—Marie de Manacine (*Arch. Ital. de Biol.*, 1894, p. 322) has experimented with ten young dogs, of ages ranging from two to four months, on the effect of complete loss of sleep, with the following interesting results: Four dogs died in from 92 to 143 hours. The temperature decreased during the first twenty-four hours 0.5° to 0.9° C., and before death 4 to 5 degrees. The reflexes were weak and the pupillary reaction slight. The number of red blood-corpuscles fell from five millions to two millions, but in the last twenty-four hours they increased. Contrary to the observations made on dogs starved to death, the brain was in all cases most affected. Many of the ganglionic cells showed fatty degeneration, and the vessels were surrounded by a thick layer of white blood-corpuscles. Small capillary hemorrhages were found on the outer layers of the hemispheres, and larger ones in the optic nerve and optic thalamus. The body-weight decreased 5 to 13 p. c.

It is of clinical importance to note that after a loss of sleep of 96 to 120 hours it was impossible to save life, even when the bodily heat was kept up and artificial feeding was resorted to.—*Medicine*.

DIAGNOSIS AND TREATMENT OF TERTIARY SYPHILIS.—(Wm. S. Gotthel, M.D., *Med. Bulletin*, Vol. xvii., No. 4, April, 1895). In the treatment of tertiary syphilis iodine and its compounds are mainly to be relied upon, but mercury fulfils an important indication and cannot be omitted. The ordinary treatment with iodide of potassium is usually sufficient, though very frequently the dosage is entirely too small. Patients with gumma frequently do not respond to ordinary doses, and it must be pushed to an extent that is limited only by the endurance of the patient's stomach. All the devices of the recumbent posture, counter-irritation over the epigastrium, the administration of the drug in milk, and with ice, must be employed to get as much as possible of the drug into the system; and the rectum, which absorbs the iodide very well, must be called to our aid. The iodide of sodium is sometimes borne when the potassium salt is not. Or the new iodide, that of rubidium, may be used. It costs more than the commoner salts, but that is a thing hardly worth considering when it is a question of saving tissues and organs from destruction. It has not nearly the disturbing effects on digestion that the potassium and sodium salts have, and it can therefore be borne in larger doses. Dr. Gotthel has not observed the disturbances of the circulatory apparatus and the depression of the heart, which are so baneful when large doses of potassium iodide are exhibited. It is a valuable addition to our armamentarium in these tertiary-syphilis cases.

Coincidentally with the iodides mer-

cury must be employed in small doses, and in bad or refractory cases the employment of the soluble salts by hypodermic injection is an important and valuable resource.

As regards the local treatment, its main lines are as follows: The non-ulcerated gumma should be covered with mercurial plaster, even when fluctuation is distinctly apparent, since resorption takes place sometimes even under those circumstances. If ulceration has occurred, iodoform in the shape of a powder or an ointment is to be used.

If, however, the destructive process is active, and the gummatous ulceration advances in spite of our efforts, it is proper to attempt to stop it by an energetic cauterization of the infiltration that forms the advancing margin of the gummatous sore. In exulcerating gummata of the trunk and the extremities caustic potash in stick should be freely employed, the tumor tissue being thoroughly bored into and cauterized. For the smaller ulcerations of the face, buccal cavity, etc., the nitrate-of-silver stick can be employed in the same way.

It is of the greatest importance, in these localities, to stop the ulcerative process as soon as possible; and if necessary either the Paquelin cautery or the galvano-caustic point should be employed.—*Int. Med. Mag.*

RESULTS OF AUTOPSIES IN CASES DYING AFTER Treatment with Diphtheritic Antitoxin.—(Geo. P. Biggs, M.D., *Med. Record*). Eighteen autopsies were included in this report, fifteen of the cases having showed involvement of the larynx. Diphthe-

ritic membrane was found in only twelve cases, in four of which it was limited to the pharynx, larynx and upper trachea, in six it covered the pharynx and tonsils, in two there was deep necrosis of the tonsils. Enlargement of the cervical glands was usually present. Parenchymatous and fatty degeneration of the heart, liver and kidneys was constantly found, and was more advanced in cases which came late under treatment. The antitoxin, when administered early, checked and prevented destructive changes. Complicating lesions were most common in the lungs. Bronchitis existed in every case, twelve showing purulent secretion with intense inflammation of the bronchial and peri-bronchial structures. Distinct membrane was found in the bronchi in only one case. Pneumonia was present in all except two. The consolidation was lobar in one instance and lobular in the remaining number. The percentage of broncho- or lobular-pneumonias was 88, a proportion much higher than that usually given. This fact would tend to show that the improvement in mortality under the antitoxin treatment of diphtheria is due to its influence on cases not complicated by broncho-pneumonia. Acute fibrinous pleuritis complicated two cases; acute exudative nephritis was found in two, and in each instance the patient did not receive antitoxin until the seventh day of the disease, and death occurred two days later. The spleen was usually found congested. The lesions of antecedent disease were chiefly of a tuberculous character, five of the autopsies revealing marked tubercu-

losis. Syphilitic cirrhosis of the liver was marked in one case and slight in another.

The average age of the patients was two and a half years, the eldest being five and a quarter years, the youngest eight months. The duration of the disease prior to the administration of the antitoxin averaged 4.4 days. The immediate cause of death in sixteen of the eighteen cases was diphtheria or some of its complications. Two cases were complicated by general miliary tuberculosis; two patients were dying when they entered the hospital; two were treated with serum of an inadequate strength, and one did not receive any. The nine cases remain for consideration as to the apparent failure of the antitoxin treatment. Two of this number died of extensive broncho-pneumonia, the death of a third was caused by fatty degeneration of the heart, acute exudative nephritis, and the septic condition of the patient when admitted to the hospital. In six cases there was laryngeal involvement requiring intubation, and all were complicated with broncho-pneumonia.

The writer makes the following deductions:

1. That antitoxin has a decided influence in loosening diphtheritic membrane, even in cases resulting fatally.
2. That it has comparatively little influence on the cases already complicated by broncho-pneumonia.
3. That it has a marked influence, when administered early, in preventing and checking parenchymatous and fatty degeneration.—*Ibid.*

RATIONAL Therapeutics of Cholera Infantum.—Gustavus Blech, M.D., (*N. Y. Med. Jour.*). A general plan of treatment may be outlined: First, remove, if possible, the disturbing causes; second, treat symptoms which *per se* are liable to endanger the life of the patient; and third, sustain vitality.

The therapeutics, which is based upon the ætiology and pathology of a given case is the only one to be employed.

Now, the ætiology of cholera infantum is not so obscure as asserted by a good many authors. Whether or not of microbic origin, one thing is sure—it is due to a chemical decomposition of food, causing an inflammatory condition of the digestive and alimentary canal.

Clinical experience, furthermore, shows that this disease is of a grave character, producing death in a large proportion. Heat *per se* is not the immediate cause of this disease, but it influences its course considerably. Therefore, gastric or intestinal disturbances in summer demand a closer attention than those which occur during the colder season. Cholera infantum is a disease met even in the palaces of the rich, although not so often as in the tenement houses of the poor, which fact proves again that bad air, filth and lack of ventilation are also of a predisposing influence, as well as an obstacle to a quick cure. The mortality in the tenement houses is larger than that of the richer parts.

As soon as called to a case of cholera infantum, prohibit for the first day any food whatever. Mothers have no right to nurse the little pa-

tient either. Strict instructions must be given in that direction, because the timid mothers are often inclined to quit the crying babies by putting them to the breast.

Remedies are of very little value. Beginning with calomel, salol and all the newer antiseptics, finishing with subnitrate of bismuth—they have all proved a failure, for none of them work quickly enough.

The treatment as outlined by Dr. Elmer Lee, of Chicago, in his cases of typhoid fever, proved a success in my hands during last summer, and under this treatment I have lost only one patient out of twenty-three, while the monuments of my skill exercised during the year 1893 are decorating the cemeteries of the State of Connecticut.

So far as I knew, the best antiseptic (which has also a strong tendency to reduce local inflammation) was peroxide of hydrogen (medicinal) until hydrozone was used by me. Hydrozone being twice as strong as Marchand's peroxide of hydrogen (for economical reasons), the latter drug is preferred by me. This remedy can be administered internally as well as externally.

I add a tablespoonful of hydrozone to a pint of water for washing out the stomach. The vomiting ceases after the first washing, as a rule. If necessary, this procedure can be repeated. If the vital power of the little patient is not too low it can produce no harm. But in every case, no matter how far advanced, I do not omit an irrigation of the bowels, for which purpose I use a soft rubber catheter attached to a common bulb

syringe. The catheter is introduced as high in the colon as possible. It is unnecessary to say that the water must first be sterilized. I do not agree with Dr. Lee in using hot soap water. On the contrary, I use cold water, and add to each quart about two ounces of hydrozone. The improvement after the first or second irrigation is marked. If necessary, these irrigations can be repeated every two hours.

Among other remedies there are only two to be employed—morphine and strychnine. Both ought to be administered hypodermically. Their indication is too well known and they are about all we need. No antipyretics should be given. If the fever is very high and if the irrigation of the bowels does not reduce it, the

whole body should be washed with alcohol.

The diet for the next twenty-four hours should be very light indeed. Sweet, strong Russian 'tea is all I allow.—*N. Y. Med. Jour.*

FRESH FRUIT in Chronic Dysentery.—Dr. Arthur D. Butts (*British Med. Jour.*) calls attention to the beneficial action of such fruits as strawberries, grapes, figs and tomatoes, if the last can be classed as fruit. These represent the seed fruit as distinguished from stone fruits. Of course the fruit must be in perfect condition. He has had considerable experience with them for several years in the treatment of chronic dysentery and diarrhœa, with the most happy results.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From June 12, 1895, to June 26, 1895:

Bradley, Capt. Alfred E., Assistant Surgeon, will be relieved from duty at Fort Custer, Montana, upon the arrival there of Major Wm. C. Shannon, Surgeon, and will report for duty at Fort Yellowstone, Wyoming, relieving *Capt. Charles M. Gandy*, Assistant Surgeon.

Captain Gandy, on being thus relieved, will report for duty at Washington Barracks, D. C.

Lewis, 1st Lieut. W. F., Assistant Surgeon, is granted leave of absence for two months and twenty-three days to take effect on or about July 6, 1895.

Pilcher, Capt. Jas. E., Assistant Surgeon.—The leave of absence

on surgeon's certificate of disability, granted *Captain James E. Pilcher*, Assistant Surgeon, is extended four months on surgeon's certificate of disability, and permission granted him to go beyond sea.

McCreery, Capt. George, Assistant Surgeon, will be relieved from duty at Fort D. A. Russell, Wyoming, and will report in person to the Commanding Officer at Fort Niobrara, Nebraska, for duty at that post.

Richard, Capt. Chas., Assistant Surgeon.—The leave of absence for three months, to take effect when he shall be relieved from his present duties, on or about June 30, 1895, is granted *Captain Charles Richard*, Assistant Surgeon.

Wyeth, Capt. Marlborough C., Assistant Surgeon, is granted leave of absence for two months, to take effect the latter part of August, 1895.

Clarke, Capt. Joseph T., Assistant

Surgeon, is relieved from duty at Fort Omaha, Nebraska, and ordered to Fort Washokie, Wyoming, for duty, relieving Captain Henry I. Raymond, Assistant Surgeon.

Captain Raymond, on being relieved, is ordered to Fort Niagara, N. Y., for duty at that post.

Captain Philip G. Wales, Assistant Surgeon, now on temporary duty at Fort Niagara, N. Y., upon the arrival of Capt. Raymond at that post, will return to his proper station.

Wakeman, Capt. Wm. J., Assistant Surgeon, will be relieved from duty at Fort Thomas, Ky., upon the arrival there of Capt. Robert J. Gibson, Assistant Surgeon, and will, upon the expiration of the leave of absence granted him, report for duty at Fort Huachuca, Arizona.

Perley, Capt. Harry O., Assistant Surgeon, upon the completion of his examination for promotion, will proceed to Hot Springs, Arkansas, and take charge as Commanding Officer of the Army and Navy General Hospital, relieving Lieut. Colonel Alfred A. Woodhull, Deputy Surgeon General.

Lieut. Colonel Woodhull, on being thus relieved, will report in person to the Commanding General Department of the Colorado for duty as Medical Director of that Department,

relieving Lieut. Col. David L. Huntington, Deputy Surgeon General.

Lieut. Col. Huntington, on being thus relieved, will report in person to the Surgeon General for duty in charge of the Museum and Library Division of the Surgeon General's Office, relieving Lieut. Colonel John S. Billings, Deputy Surgeon General.

Pilcher, Capt. Jas. E., Assistant Surgeon, will be relieved from duty at Fort Niagara, N. Y., upon the expiration of his present sick leave, and will report in person to the Commanding Officer at Columbus Barracks, Ohio, for duty at that station.

Brechemin, Capt. Louis, Assistant Surgeon, will be relieved from duty at Columbus Barracks, Ohio, upon the return from leave of absence of Major William E. Waters, Surgeon, and will proceed to and take charge at Baltimore, Md., as Attending Surgeon.

THE NAVY.

For the week ending June 22, 1895: Medical Director A. A. Hoehling is placed on the Retired List.

Medical Inspector G. W. Woods is ordered for examination preliminary to promotion to Medical Director.

Surgeons G. F. Winslow and R. A. Marmion are ordered for examination preliminary to promotion to Medical Inspectors.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Dr. Wm. J. Pettus, Passed Assistant Surgeon in the Marine Hospital Service, was married in this city on the afternoon of June 27th, to Miss Daisy Caden Peter, of Texas.

The London correspondent of the *Medical News* gives the amount of the estates of several prominent medical men who have recently died. The largest estate was left by Dr. Francis

Bisset Hawkins, who was nearly one hundred years old. It was estimated to be about \$660,000, but was mostly inherited. The writer says: "The quarter of a million left by Clark, and the still larger amount left by Gull, were only partly made by the practice of medicine. Both these successful physicians numbered among their patients mighty men of finance, who acted as their pilots amid the treacherous shoals and currents of the money market. The average British doctor, whether in town or country, as a rule, leaves little beyond the amount of his life-insurance and the 'good-will,' whatever that may be worth, of his practice. The average net income of physicians throughout the country probably does not exceed £500 (\$2,500).

William Henry Schieffelin, the senior member of the well-known firm of W. H. Schieffelin & Co., druggists, of New York City, died June 21st. Mr. Schieffelin was nearly fifty-nine years of age, having been born in New York City August 20, 1836. The house of which he was a member recently celebrated their hundredth year in business by issuing a pamphlet giving a history of the business. Besides being a highly successful business man, Mr. Schieffelin was strictly religious, and was a member of the Brotherhood of St. Andrew, a body organized for work among young men.

The twenty-first annual meeting of the Mississippi Valley Medical Association will be held in Detroit, Mich., during the first week in September—

Secretary Dr. F. C. Woodburn, Indianapolis, Md.

A DANGEROUS POPULAR ANTISEPTIC.—The popular knowledge that carbolic acid is an antiseptic is productive of a great deal of harm. The fact that it was the first antiseptic employed by Sir Joseph Lister in wound treatment has been in many ways unfortunate for the human race. Surgeons have until recently regarded it as indispensable to have their instruments in a tray of carbolic solution, which, if strong enough to sterilize the instruments, destroyed the surgeon's hands for practical purposes; and if, as was usually the case, it was so weak as not to actually burn in the hands, did no good as an antiseptic—circumstances which were bad for the patient, the surgeon and all concerned. The disadvantages of carbolic acid, however, can be best seen in out-patient clinics, whither patients continually come with the skin of their hands parboiled and peeling off, exposing the raw subcutaneous tissue more or less eroded by the carbolic acid which a kind friend has advised them to use for a slight cut, or burn, or abrasion. The desirability of ascertaining the strength of what they are using does not occur to them. They are the victims of popular "Listerism" in its most primitive form. If the lay mind could only be made to appreciate that carbolic acid is always dangerous and seldom efficient as an antiseptic, a great deal of unnecessary suffering would be prevented.—*Boston Med. Surg. Jour.*

WHY PHYSICIANS USE AN "R."—A woman of an investigating turn of

mind started out the other day to discover why physicians begin their prescriptions with the letter "R." Well, she found out, but it took time and caused her some trouble. It seems that during the middle ages, when astrology was in fashion, a character very much like our "R." was the sign of Jupiter, the preserver of health. The physicians, being then equally devoted to the science of medicine and astrology, invariably began their prescriptions with the following words: "In the name of Jupiter take the following doses in the order set down hereinafter." In the course of time this formula was abbreviated, until at present only the letter "R." remains to teach us that the medical art was once associated with the science of the stars.—*Boston Traveler*.

TO REMOVE NITRATE OF SILVER STAINS.—Hahn recommends the following mixture for this purpose: bichlorid of mercury, chlorate of ammonia, each 5 grams, distilled water 40 grams. The stains are touched with a piece of cloth dipped in this mixture, and then rubbed. The spots, even if of long-standing, disappear almost instantly, on woollens, cotton or linen. Stains on the skin may be removed by the same method. They first assume a yellowish-white color and then completely disappear.—*Ex*.

The death is announced of Dr. Verneuil and of Professor Huxley.

Don't forget to mention the NORTH CAROLINA MEDICAL JOURNAL when you write to advertisers.

In our next issue we will commence a series of foreign letters from a special correspondent, which will give an account of professional matters in the great cities of Great Britain and the Continent. They will prove of much interest.

Dr. Lewis A. Sayre has been elected an honorary member of the Société Belge Chirurgie. A well deserved honor.

Professor Trendelenburg succeeds Professor Thiersch in the University in Leipsic, and is himself succeeded by Professor Mickulicz.

BEQUEST TO ST. LUKE'S HOSPITAL.—By the will of the late Rufus Waterhouse the bulk of his estate, amounting to about \$200,000, is left to St. Luke's Hospital for the purpose of establishing and maintaining the "Mary S. Waterhouse Memorial Ward" for consumptive sewing women. Mr. Waterhouse was a large manufacturer of men's furnishing goods. His wife, whose name the ward will bear, died of phthisis, and he saw many of the young women whom he employed stricken with the disease and unable to support themselves. He died a widower and childless.—*Boston Medical and Surgical Journal*.

MEDICINE IN TOKYO.—In Tokyo a recent census has shown that the city contains 2,315 medical men, 70 dentists, 69 veterinary surgeons, 371 pharmaceutical chemists, two city hospitals, three government hospitals and 41 private hospitals.—*Ibid*.

Reading Notices.

The attention of our readers is called to the advertisement of Robinson-Pettet Company, which appears on page 13, of this issue.

This house is one of long-standing and enjoys a reputation of the highest character.

The preparations referred to we commend specially to the notice of practitioners.

The production of Pepsin has occupied during the past few years more attention, greater capital, larger plants and wider knowledge of the whole subject on the part of producers than ever before in the history of medicine. Improved processes, coupled with greater skill, have practically eliminated from this article those impurities to whose intimate association with the ferment itself can be attributed the unwholesome odor and nauseous taste of the various brands of pepsin obtainable only a few years ago. A pepsin free from mucus, practically without odor, perfectly soluble and of at least U. S. P. standard (1:3000) is one that can be expected to give results where pepsin is indicated. To those who want to use a still more active pepsin we suggest S. & D.'s Webber-Pepsin (1:6000). This is one of the ingredients of the same firm's Pan-Peptic Elixir—a deliciously palatable preparation to which our attention has recently been called.

The "Best" Tonic—Pabst Malt Extract.—(By W. R. D. Blackwood, M.D.)—During the ever-to-be-remembered Centennial Year I had, amongst other nice people (to say nothing about the nasty ones), call upon me the representative of a firm making a malt extract. After letting

him talk to what I thought was a fair amount, I interrupted his discourse by telling him that in my opinion no thin extract of malt was any good. He simply waited till I got through with my talk on the subject, and then asked me if I would not do him the favor of naming several hospitals which would be likely to accept some extract of malt with which to try its virtues. The next day he sent to the hospitals I named from two to a half dozen of cases, each containing two or three dozen bottles. He also sent me a lot, and I found it to be the very best malt extract which had ever come into my hands, and since then I have stuck to it. This "Best Malt" is known to the trade as The "Best" Tonic-Pabst Malt Extract, and is manufactured by the Pabst Brewing Company, of Milwaukee, Wisconsin. It is a long time since I first came into the knowledge of this excellent brand of malt, and it will be an equally long time (if I live) before I give it up for any other. I believe in the "Best" Tonic as being the best, no punning being intended. For children it is especially adapted, as not being acrid or sour, as too many of the brands are. It "sets" well on the stomach (as the old woman had it), in weak ladies who reject the ordinary malts. It keeps well, which is an item of moment in hot weather. It is economical in cost and is pleasant in taste. Such characteristics ought to make doctors try it, if you don't already know its merits, and such of my readers as have not yet invested in it would do well to find out for themselves what it really is, and I am sure that they will not be disappointed when they do.—*Medical Summary.*

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ANÆSTHESIA.

By J. G. BLOUNT, M.D., Washington, N. C.

In this grand march of the surgical mind towards the ideal in all things pertaining to that branch, it behooves us all to look well to each feature that will contribute to the attainment of that ideal.

Seeing the advances made in asepsis and antisepsis and the incursions and invasions made with impunity upon the viscera that have heretofore been regarded as sacred and inviolable, my attention is directed to one of the elements that sometimes thwarts our object. While as yet no ideal has been attained to produce that "*profundo sopore*" spoken of by John Calvin in his Commentary on Genesis, yet we are here to-day to discuss the relative merits of the different agents and some of the means available to contribute to the safety in the administration of those agents. Before entering upon that discussion it is fitting and right that we review, briefly, the history of anæsthesia and its growth up to the present. To-day we are familiar with the origin of the term because of the discussions that have occurred recently in the medical journals. About the middle of the nineteenth century Morton, the Boston dentist, while in conversation with the lamented Holmes, was at a loss for a word to express the effect produced by the inhalation of the vapors of the newly found substances. To the quick and fertile mind of Holmes the word *æsthetic* occurred at once as being sensitive, and *anæsthetic*, as being insensitive, easily followed. Letheon was first suggested as the most fitting name for the youngster that was precocious enough to demand immediate baptism, but Morton chose rather etherization and anæsthesia, and these have been held up to the present hour.

In all ages since the origin of man, even before the creation of woman and

man's downfall, we are taught the first principle of humanity—that of gentleness and relief of suffering. We find the great Creator first setting the example by causing a deep sleep to fall upon Adam, and it was in this lethargic condition that the first surgical operation was performed—that of the removal of the rib—and “he took one of his ribs and closed up the flesh thereof.”

Seven hundred years B. C. we find this same divine attribute emanating from the heart of man and the “wine of the condemned” is spoken of by the prophet Amos. Rather than torment condemned criminals this wine, Indian hemp it may have been, was given them, and it was in this semi-benumbed condition that the confessions were extracted from them.

So, also, is it believed by all commentators that our Saviour on the Cross was offered this same wine, and so this divine attribute that was manifested by the All-wise one at his first infliction of physical suffering, has been manifested by that noblest of His works man, and we find our beloved profession to-day struggling, striving, diving into the depths of half-forgotten lore and spending miserable lives in the hidden recesses of musty laboratories still in pursuit of a more ideal method of affording this relief.

As early as the third century, more than fifteen hundred years ago, it is recorded of Hoa-tho, an ancient Chinese practitioner, that he administered hemp for the production of anæsthesia, and in his description of its effects he states that when the drug is swallowed “the mind is immediately filled by a delicious succession of pleasant ideas which banish all cares and produce a perfect indifference to pain,” and that “after a certain number of days the patient finds himself re-established without having experienced the slightest pain during the operation.”

Herodotus makes mention of burning hemp and that the Massagitæ and Scythians inhale the burning vapors and by them become intoxicated as the Greeks do by wine. So are we all familiar with the *Nepenthe* of Homer and the “Jove-descended Helen” so drugged the wine as to “free men from grief and from anger and cause oblivion of all ills.

And now, about the thirteenth century, Theodoric, in his *Chirurgial*, before entering the priesthood, gave most minutely the preparation of the “*Spongia Somnifera*,” which foreshadowed more closely than anything before our present method of producing anæsthesia. A sponge was dipped into an aqueous extract of opium, hyoscyamus, mulberry, hemlock, mondragora, wood-ivy, seeds of dock and lettuce and water hemlock, and this placed in a brazen vessel and boiled away in it until the sponge consumed it all. Whenever needed, this sponge was placed in hot water for an hour and applied to the nostril of the patient to be anæsthetized. If there was difficulty in arousing the patient, another sponge dipped in vinegar or the juice of the root of *foenugreek* was applied to his nostrils. As late as 1534 we find this

"*Spongia Somnifera*" still in use and Paré speaks of it as "used formerly" by operators.

And was not the immortal Shakespeare conversant with all these methods, for we know well that the Friar administered to Juliet a potion that "each part deprived of supple government did stiff, and stark, and cold, appear like death."

In 1784 we find Dr. Wilson Moore, of London, attempting to diminish the pain of surgical operations by the application of compression to the principal nerves supplying the part. Malgaigne, the French surgeon, experimented along this same line, but its application was as painful as the operation and soon fell into disrepute. Later, in 1819, Mr. James Wardsup resorted to copious venesection to diminish the sensibility in painful operations, and thought it most suited to persons of a nervous, irritable temperament, and always carried it to the extent of syncope.

Even up to the time of Samuel Gross we find him using complete opium narcosis as a means of producing anæsthesia, and where the patient was sufficiently strong he combined with it a little tartar emetic that the patient might be all the more thoroughly relaxed and insensible. These shared the fate of their predecessors upon the introduction of more modern anæsthesia.

Having reviewed, briefly, the ancient and mediæval history of anæsthesia, and shown that it was first accomplished in the olden times by the divine command, and later by the inhalation of vapors driven off from the "*spongia somnifera*," drinking solutions of these same extracts, the drinking of narcotic potions, copious venesection, mechanical means and the like, we come down to the substances used to-day and the beginning of their life.

Eighteen hundred, the closing year of the eighteenth century, marked the beginning of the investigation along the line of modern anæsthesia. It was in this year that Sir Humphrey Davy, one of England's most celebrated chemists, while experimenting with nitrous oxide gas, became convinced of its anæsthetic properties. His deductions were early looked upon as chimerical, and his discovery passed into history without practical use being made of it. Dr. Wells, a dentist of Hartford, revived this, and, after due experimentation, on the 11th December, 1844, the first anæsthetic operation was performed, that of extraction of teeth, with Dr. Wells, the discoverer, as the patient. After this many teeth were extracted in rapid succession.

Enraptured, enthusiastic and confident over the success of his discovery, he made known its virtues to Drs. Heywood and Warren, of the Massachusetts General Hospital, and they were to extract teeth before their student body, with members of the class as patients. Unfortunately, however, the bag was removed too soon and the operations were painful. Wells was hissed from the amphitheater, and, with his keenly sensitive nature wounded to the core, he left Boston to give up, for a time, his profession with vexation and

disgust. This inhalant again sunk into obscurity and was only revived in 1863.

In 1796 ether was first used in England as an inhalant in certain lung diseases, and in 1805 was used in Boston for the same purpose. Notwithstanding these early uses of ether, we are not concerned with it for its anæsthetic effects until March 30, 1842, when Dr. Crawford W. Long, of Athens, Georgia, made use of it for allaying pain in surgery and observed that persons who had hurt themselves while under its influence felt no pain. Unfortunately, however, it remained for Dr. Wm. T. G. Morton, on the 30th of September, 1846, in Boston, to perform the first case of an anæsthetic operation under sulphuric ether, by means of which the surgeon's knife was made kind and surgery every afterwards robbed of its terrors. Of all the substances yet discovered for prolonged anæsthesia the safest by far is sulphuric ether.

It affects first the respiratory centre, and before the citadel of the vital fluid is devastated we have a warning of the approach of the death-dealing seer.

In the production of its anæsthetic effects we notice three stages, which are as follows:

1. Exilaration and excitement.
2. Narcosis.
3. Sensibilities and reflexes abolished.

There is noticed from its administration a hacking cough and feeling of strangulation from local irritation. After its absorption successively and progressively are the nervous functions affected. Cerebration and voluntary motion first yield to the subtle invader and subsequently sensibility and consciousness are no longer able to withstand its influence and the patient lies in a state of complete narcosis. Before this stage of complete narcosis there is a period of excitement, and it is at this time that the character of the individual is developed. The banker draws his checks and figures interest, the doctor vends his pills and various individuals reveal their hidden secrets.

Before complete insensibility there is a momentary anæsthesia called primary, and this is sometimes utilized for minor operations, though most authorities contend that operations during the primary anæsthesia shock more violently than where complete narcosis is induced. Ether is irritating to the air-passages and at the outset there should be allowed some admixture of atmospheric air so as not to frighten the patient, though later on it should be pushed to purity to prevent vomiting. Owing to this irritation of the bronchial mucous membrane pulmonary congestion and œdema may supervene, and hence it is best for a time to avoid exposure and to apply as much artificial heat as possible. Ether, too, lowers the temperature, and for this reason, as well, the above cautions should be rigidly adhered to. There are times now when choosing an anæsthetic we would not be led to select ether.

Where there is any renal disease, as evidenced by albumin or casts, ether would be contra-indicated and chloroform, that I aim to discuss later, would be employed. So, also, if there be much bronchial irritation or chronic pulmonary trouble, ether would not be our selection. If, on the contrary, the heart is weak and flabby, ether is indicated and chloroform to be avoided. The advisability of changing from ether to chloroform, or the reverse, during the operation, must be left to the individual judgment of the physician who has charge of its administration.

Chloroform is a later production than its co-partner ether. It was not discovered until 1832, and then almost simultaneously by Soubeiran, in France, Liebig, in Germany, and Samuel Guthrie, of Sackett's Harbor, New York, though it is to the latter that a generous profession has awarded the honor of its discovery. Notwithstanding its discovery, in 1831 it was not made use of for anæsthetic purposes until Sir James Y. Simpson brought it to the attention of the profession on the 15th of November, 1847, at Edinburgh. Upon its inhalation, after a brief period of stimulation, it is depressing in its effects and in over-doses is a certain poison, acting by the destruction of the contractility of the heart-muscle.

John MacWilliams, of Aberdeen, has demonstrated that even when due admixture of atmospheric air has been allowed in its administration there is caused at times an acute dilation of the heart, and that this may even precede the loss of conjunctival reflex, affecting both sides of the heart, and often occurs before any fall of blood-pressure. Artificial respiration in these cases avails us nothing, for the dilated and enfeebled heart is no longer able to maintain the circulation. The dilation is produced, according to MacWilliams, by the direct poisonous effect of chloroform upon the heart-muscle. Up to the time of the report of the first Hyderabad Commission a large majority of clinical observers shared in the belief that chloroform destroyed life mainly through cardiac failure. After repeated experimentation upon the lower animals this Commission decided that the drug killed by its destructive action upon the respiration—a statement that provoked most violent opposition. So violent, indeed, that a second Hyderabad Commission was formed under the auspices of the Nizam's government; this Commission, after a thorough re-investigation, arrived at practically the same conclusion, namely, that chloroform always arrested the respiration before the heart.

Hare and Thornton, under the auspices of this same Nizam's government, made a very elaborate report to the effect that chloroform practically always kills by failure of the respiration when administered by inhalation, "provided" (and this they regarded as the most important), "that the heart of the anæsthetized has not been rendered functionally incompetent by fright or violent struggle, or again by marked asphyxia. While they most positively assert that the drug destroys life by primarily causing failure of the respiration, it is also asserted by them with quite as much positiveness that in excessive

doses by inhalation chloroform has a depressant effect on the circulation, which is chiefly due "to centric vaso-motor depression with final depression of the cardiac muscle itself."

In the face of so great mass of contradictory experimental evidence, discordant laboratory results avail us, as general practitioners, nothing, and we should cultivate our own good judgment and study carefully each individual case. Chloroform, let me repeat, is unquestionably more dangerous than its co-partner ether, and yet were we able to find out directly the deaths produced secondarily by ether as from pulmonary congestion, œdema and the like, I feel very confident that we would not find such disparity in the statistics.

It is a fact that most of the recorded deaths from chloroform narcosis come from general practitioners, showing to my mind that it is principally to the inexperienced that this untoward result is apt to happen. Let us, then, study some of the methods to avoid this.

In the first place, its administration should not be left to the careless and inexperienced, but should be administered by the one who has had most experience with it and who will be wholly absorbed in its administration. Secondly, before the beginning of its administration we have certain agents that are useful. Of all the circulatory and respiratory stimulants atropia ranks first. It diminishes the secretions of the mouth, throat and bronchial mucous membranes and likewise the skin, and, according to Hare, allows the administration of more chloroform without depression. It is combined with morphine, so Wood states, as "a useful corrigent to the disturbing and irritating action of the latter upon the pneumogastric." All of these effects are desirable in the preparation of chloroform and ether anæsthesia as well.

In small doses morphine is a cardiac stimulant and aids largely in diminishing and preventing vomiting after ether. A happy combination, therefore, before anæsthesia is $\frac{1}{4}$ gr. morphia and $\frac{1}{16}$ gr. of atropia—they both lessen vomiting. Since both chloroform and ether lower temperature, external heat, such as water-bags, hot irons, etc., should be applied. The temperature of the room and its humidity should be taken into account. When high and dry, volatilization is more rapid and it is more diffusible, and anæsthesia and recovery therefrom more rapid.

Richardson claims that "fatal results follow upon the sudden impact of chloroform (an irritant vapor) upon the nervous periphery of the breathing surfaces." This fact points directly to the danger of rapid chloroformization. Richardson's formula, a most excellent one, is as follows: "Never induce slow narcosis through every stage, but, having carefully felt the way in the first minute or two, push quickly into the third stage, in which, if the body be not surcharged with chloroform, the danger is comparatively small." During the administration of all these subtle vapors we should ever be on our guard. We, as men endowed with reason, must not follow blindly the result of laboratory experiments upon parish dogs when they collide with

practical experience or physiological common-sense. The respiration should have all the consideration that is its due, but it would be the folly of follies, to use the words of Mr. Daily, the London anæsthetist, "to neglect the pulse, the pupil and color of the complexion."

The respiratory and cardiac centres are vital centres, and when the chloroform is pushed to the extent of interference with either the pulse or respiration, we are already confronted with one of the signs of dangerous overdosing. Again, both the pulse and the respiration can be affected not alone by the anæsthetic, but by the reflex inhibition, which is oftener the precursor of vomiting, and especially is the pulse irregular and depressed during vomiting. Of all the indications the pupil is the most important. The third nerve centre which governs it is not a vital centre like the respiratory and circulatory, and its narcosis is not in itself followed by dangerous symptoms. In all anæsthesias there are three changes that the pupil undergoes. At first dilated and active, then contracted, and finally dilated and fixed. The dilated and active pupil indicates that narcosis is incomplete, the contracted pupil is an indication of complete and safe narcosis, while the dilated and fixed pupil is the herald that comes to forewarn us that unless we desist and are less persistent the respiratory and cardiac centres are in danger of narcosis. The only safe pupil, then, is the contracted one. The pupillary changes are explained as follows: In the first stage the pupil is dilated because all the impulses received by the half-narcotized cerebrum cause a reflex inhibition of the third nerve centre, and active because the centre itself has not been anæsthetized. In the second stage the pupil is contracted because the cerebrum is completely anæsthetized, and all cerebral reflexes being cut off, the third nerve centre is unimpaired in its action. Further, the pupil is dilated and fixed because the centre itself has been reached and narcotized. This is indication of great danger, for respiratory and cardiac narcosis are imminent.

What I have said in regard to overcoming the dangers of chloroform is equally applicable to ether. Should we, in the production of anæsthesia, be confronted with dangerous toxic symptoms, what are we to do? Always we should have prepared a hypodermic of strychnine and digitalis, and this should be immediately inserted into the deltoid muscle. If there is present much cynosis, a pearl of nitrite of amyl should be broken in a handkerchief and applied to the nostril. The table should be inverted into an inclined plane, with the declination at the head. Posture in these cases, according to Hare, is all-important. I had the pleasure of being present to hear Dr. Hare's lecture at Johns Hopkins, with demonstration on the cadaver, of the method of opening the glottis. The tongue should be pulled outward and upward toward the upper incisors and the neck, instead of being lowered, as in Howard's method, should be elevated, else the tongue will obstruct the glottis, and the head should be extended. The position is best described by

that one assumes when running. Sylvester's method was found to be by far the one allowing the greatest entrance of air, though the feet should be fixed and the body stretched. In the beginning the first movement should be an expiratory one, so as to rid the lung of that vapor-laden air that would otherwise continue to be absorbed.

Electricity, that has been so vaunted and highly lauded as an aid in restoration after imminent narcosis, is not so extensively used as formerly. According to Wood, if applied on the left side, there is great danger of electrolyzation of the pneumogastric, and thus inhibition of cardiac motility, and sometimes, when applied on the right side, there is danger of an overflow of current and with some inhibitory action resulting. The pouring of ether over the bared abdomen, intermittent pressure over the diaphragm and the grasping of the heart through the relaxed chest wall and its intermittent compression are all in use to-day and have their advocates.

Methylene bichloride was first made known to the profession in 1867 by Dr. W. B. Richardson and since pronounced by Mr. Spencer Wells to be the safest anæsthetic. In more than a thousand cases with him it proved free from danger and without unpleasant symptoms. With nine fatal cases, however, recorded against it, it is to-day almost a thing of the past. Several years ago ethyl bromide came into very general use and at one time bade fair to supersede both chloroform and ether. Several lethal exits sufficed to drive it from the anæsthetic stage. Within the past year Dr. W. S. Magill, of Chicago, has again brought it to the attention of the profession and lauds it highly in inducing the first stage of anæsthesia and following it up with chloroform. In all sixteen fatal cases are on record against it. Its advantages, according to Magill, are—the rapidity, the elimination of the disagreeable phases of chloroform or ether which precede or retard recovery from these reagents and the diminished quantity of the toxic agent required—all these elements of superiority combine to invite the notice and experimentation of surgeons.

Of the new anæsthetics, the most recent that has been brought to the attention of the profession is pentol, by Dr. P. F. Feoddroff. It is not irritating to the mucous membrane, and its duration is from one to two minutes, though once induced it may be prolonged from two to five minutes. In very many cases the radial pulse is not affected, though especially at the beginning should we be circumspect and cautious in its administration.

Analgesia is induced while consciousness is still retained, though, as with the other anæsthetics, prudence demands that we await complete anæsthesia. In ten or fifteen minutes after its first administration it may be used again with perfect safety.

In short, pentol is well adapted to operations of short duration. None of these agents have gained a foothold on the American people.

Early in 1847, when the year was yet young, so enthusiastic was Sir James Y. Simpson, that it was his custom to go about singing:

“Not poppy, nor mandragora
Nor all the drowsy symphs of the world,
Shall ever medicine thee to that sweet sleep.”

And so may we, in the closing decade of the nineteenth century, in no short time be able to say:

“Not chloroform, nor ether,
Nor all the subtle vapors of the world,
Shall ever medicine thee to that sweet sleep”—

a sleep to be produced by that ideal anæsthetic yet to be. Before that time, however, let us, one and all, as general practitioners, study most carefully the danger signals in the administration of chloroform and ether, and thus continue in pursuit and in perfecting, to use the words of Dr. Jacob Bigelow, “the most beneficent discovery which has blessed humanity since the primeval days of Paradise.”

DISCUSSION.

Dr. Booth emphasized two points that should be attended to in resuscitating a person in chloroform or ether narcosis, namely, getting blood to the brain and artificial respiration. He cited two cases in which respiration and pulse had both ceased. In one, elevation of the feet and artificial respiration had worked excellently; but in the other case they failed; the reflexes were aroused, however, by dilatation of the sphincter ani.

FIBROID TUMORS AND PREGNANCY.—In *Archiv. de Toc. et de Gynec.*, October, 1894, Remy reports a case of a woman with a large fibroid tumor becoming twice pregnant. There were two distinct tumors in the abdomen, one on the right side and one on the left, which at full term were about of equal size. In the first labor the fœtus was dead, but in the second a living child was born and the mother made an uninterrupted recovery.

Hofmeier (*Zeitsch. f. Geb. u. Gyn. bd. xxx., heft 1*) says that myofibromas complicating pregnancy do not impose any particular danger on the patient, either from hemorrhage or interruption of gestation; in fact, the dangers of such a pregnancy are no greater than those of a normal one. In some cases there is a rapid hypertrophy of muscle fibre of the uterus, but this rapidly recedes after confinement, and should not constitute a danger to the patient.

Another element of importance to be considered is the swelling of the abdomen to immense proportions when the two tumors are present. Hofmeier admits that complications justify operation during pregnancy, but claims that the indications for such operative interference are very rare. The operation should be postponed as long as possible, since the provocation of a premature labor entails the sacrifice of the child and more danger to the mother than confinement at full term.—*Medicine.*

HEMORRHAGIC FEVER—SOME EXPERIENCE WITH IT.

BY P. B. LOFTIN, M.D., Grifton, N. C.

"Boil down," printed on the card notice from our Secretary, attracted my attention when I received notice of this meeting with a request that I send in the title if I expected to read a paper.

I assure you, Mr. President and gentlemen, it would more than please me could I think a volume, write a page and convey my experience with this dread monster to the minds of this body by publishing of that page but a single line; but such is not the case, and my hopes along this line would be blighted were I to expect it.

From the headlines of this paper you would naturally suppose that the writer had encountered some hemorrhagic fever in his practice, and so he has. It was so prevalent in our town and surrounding country from September 1st, 1894, to the last of February, 1895, that it was really alarming.

Do you ask what hemorrhagic fever is? I cannot define it satisfactorily to myself. I do not think it an acute affection, though when we diagnose the malady under the above name it usually runs its course in a short while, and your patient is convalescent; or, on wings of a golden hue, his spirit soars to untried regions.

I must think that it should be placed with chronic diseases, because I am satisfied that hemorrhagic fever is developed from chronic malaria, because the history is ever thus: Patient—I have been having chills occasionally for months, about one every week; would take some quinine and stop them; would take a little quinine every day for two or three days, then stop.

So it would go for months; patient become ænemic, with a history of a broken-down constitution. Suddenly, when the patient is least expecting it, when he feels as well, perhaps, as at any time for months, he urinates, and behold, it is the color of cherry wine. When once seen it will never be mistaken if preceded by chills, as above stated.

I am fully satisfied that hemorrhagic fever is caused by an over-production of the malarial germ. How is this germ taken into the system? Answer: With drinking-water. This I have proved, beyond the shadow of a doubt, to my mind. I have, for several years, been pleading with my people to get a better supply of drinking-water, but every family think they have the purest water in the county; though they drink daily from the drainage of a cess-pool, they get used to it, and it tastes all right. I tell you it is a job to make any one think the water he drinks is not all right—about as difficult as it is to make a dude think he could do without his cane and cigarette.

Last fall, when that terrible scourge came on, most of our people began boiling their water, and whenever this is strictly adhered to, the chills always

*Read before the North Carolina Medical Society, May 15, 1895.

disappear. I cannot dwell along this line, but am glad to see so much is being written and done to get the people to drink pure water. In fact, I sometimes think myself to be fanatical on this subject.

“Pure water, fresh from the fountain, we think,
Is nectar such as the gods used for drink;
And when the people, as beverage, this elixir will use,
Health to the nation Hygea'll not refuse.”

When treat hemorrhagic fever? Before you have it. Prophylaxis. Don't have it; but, if you must encounter it, *then treat it at once*. Ask, as a special favor of your patients, if they intend to send for you in this disease to do it at once, and implore them, if they are going to wait twelve or fifteen hours to send, that they consign their bodies to the dust and their spirits to the God who gave them, without compelling you to add another lost patient to your already too long list—for it surely will be long, if you have many patients who wait for the sick stomach to come on before treatment.

It seems that Providence has provided a few hours, in all cases, to elapse between the first hemorrhage (which is generally through the urinary passage) and the time the sick stomach comes on, in which to treat your patient. My experience has been that, if these golden moments are lost and the patient receives no treatment until sick stomach comes, with the exception of a few cases in children, you had as well inform your patient's family that you can hold out to them no star of hope. It is always best in any case to be careful how you make a prognosis. I would say, in passing, that my experience has proven the disease is not so hard to control in children under twelve years of age.

Treatment.—After your patient has had a hemorrhage and you are sure you have a case of hemorrhagic fever, the first thing give sulph. quinine without much limit, say gr. lxxx., then gr. xx. every half hour until, say cl. or cc. grs. are reached, then gr. x. every hour until sick stomach comes on.

You may say that you cannot get your patient to take it, but when they find they have “yellow chill,” as the laity know the disease, and you tell them this is the only remedy, they will swallow capsules like a chicken eating corn.

If your patient becomes blind, slack up on quinine and tell him his sight will return. My experience is that blindness may be expected in some cases, but sight always returns, and it is better to be blind a few days than to have the windows to the soul closed forever.

I give also, in the beginning, a saturated solution of nit. pot., teaspoonful in boiled water every two hours until perspiration sets in, then some four times each day. I stop patient from drinking any water except such as has been boiled. I allow no solid food of any kind given, all spirituous liquors are withheld and no internal stimulant allowed.

I never give calomel until sick stomach comes on, then I give it in $\frac{1}{4}$ gr. doses, combined with pepsin, every half hour, until six or eight powders are given.

I keep bowels open with some agreeable laxative. I do not give ergot to check hemorrhage—it has not, I think, proven best for me. I have patient well nursed and limbs occasionally rubbed during the first thirty-six hours. I give turpentine after hemorrhage stops. If temperature goes above 103° , I bathe my patient in water, say 80° F. I never use any of the coal-tar preparations. My experience with them is that they weaken, and I find cold water not only reduces the fever, but tones up my patients, and they soon learn to love it, though, at first, they may fear it. Then, in short, I treat whatever symptoms I find.

I feel sure that no one can lay down a prescribed course of treatment in every case. It has been my experience, without an exception as yet, that when I have seen my patient within five hours after the hemorrhage, I have not lost a case. On the other hand, when it has been fifteen hours from time of first hemorrhage to time treatment began, I have not saved a case except in a few children under ten years.

So, gentlemen, ever bear in mind,
If success you would find,
Hemorrhagic fever treat in time,
Or soon you'll hear the funeral 'hyme."

My excuse for offering this paper is that I have long looked in vain for something satisfactory on this subject. If anything I have said has given any brother practitioner one ray of light (should he have to encounter what I have had to for the past six months), then I feel that I am well paid for the time spent on this paper.

DISCUSSION.

Dr. Frank Duffy felt a great deal of diffidence in saying anything about hemorrhagic malarial fever. He was obliged to Dr. Loftin for discussing the subject, but differed from him in some points in the paper. Dr. Loftin said that in all cases hemorrhagic fever has followed chronic malarial fever. It is true that it is chronic in most cases; but from his experience and from that of his brother, Dr. Charles Duffy, who works with him in the same office, he would say that there are cases that do not come on in that way, but that the first manifestation of which is hemorrhagic malarial fever.

He considered the use of quinine the most important point to be discussed. He and his brother had used quinine, as everybody else, in the beginning of the treatment of that fever, and have about reached the conclusion to use none, and certainly if any, very little. He had known some instances where chills were followed by hemorrhagic fever, treated in methods which he would

presently attempt to indicate, and then followed by quinine, and that the hemorrhages followed the use of quinine. Quinine was discontinued and other treatment used and the hemorrhage disappeared, and quinine again administered and the hemorrhage returned—sufficient to make them believe that there was a causative relation between the quinine and the hemorrhage.

He thought it highly important that the patient be treated at once. He had seen one fatal case this season which did not seem to have had any malarial chills preceding it. Another physician had been attending this patient living some eight or ten miles from New Berne. The diagnosis was pneumonia, which he thought correct from some indications. He was called in a few days later and found that hemorrhage had occurred from the kidneys and that the patient was very far gone and he died in a few hours. That was the only fatal case out of a half dozen they had treated during the year. He relies largely upon bicarbonate or citrate of potash. He himself used lemon juice frequently; sometimes with potash, so as to get an effervescing draught delightful to the patient. Except in the beginning of the disease the temperature is, in most cases, not above normal, perhaps sub-normal, and does not remotely suggest the use of an antipyretic.

As to the hemorrhage, it is a current belief, and is probably so in the majority of cases, that the red blood-globule does not appear in the urine. He had seen the red blood-globule by microscopic examination of it, and in some very malignant cases not only does the hemorrhage occur in sufficient quantities from the kidneys to show the red blood-globule, but even from the rectum under the skin, or from other surfaces of the body, showing somewhat the appearance of purpuric hemorrhage. A remedy which he had used with considerable advantage, and which his brother had followed him in the use of, is hydrastis. It is an unpleasant remedy to the taste. He had used the fluid extract containing the two active principles of the drug. There is the colorless hydrastis, which he did not believe equal to the colored. The stomach will not always retain that—very frequently will retain nothing. He had seen nothing to equal the hypodermic injection of morphine to stop nausea, but the smallest hypodermic injections of morphine may be tried. He certainly would not give more than a quarter of what he would give in ordinary cases; and usually the patient would retain the hydrastis, potash, lemon juice or combination. His friend, Dr. Attmore, who practices in Pamlico county, had probably had more cases of that kind than any one else, and he used a great deal of spirits of turpentine with very favorable results.

Dr. Booth was very glad that he had never had a case of hemorrhagic fever in his life. It was his good fortune to be about a week in the company of Dr. McIntosh, a very eminent man, who has had a great deal of experience in hemorrhagic fever. He has quit the use of quinine and uses digitalis alone and gives very large doses, thirty grains, three or four or six hours

Dr. N. H. Street, Newbern: My experience with the type of fever called hemorrhagic has been limited to eight or ten cases, and consequently I can only theorize as to its etiology and pathology.

I believe it to be a low form of fever—pernicious malarial, paludal or swamp fever of a more or less congestive variety, whose external manifestations are very similar to yellow fever.

I have met with two varieties which, for lack of a better differentiation, may be termed primary and secondary. The primary cases are those which come on suddenly, without the pre-existence of any other disease. The symptoms usually are as follows: Chill, fever more or less pronounced, constipation, sick stomach, jaundice—the system seeming to be thoroughly saturated with bile, usually within twenty-four hours blood appears, first in the urine, but may occur in any part of the body, from the simplest purpuric spot to the most violent hemorrhage from stomach, nose, bowel and bladder. With these symptoms usually in fatal cases, and these cases are nearly always fatal, there is added the horrors of uræmia, there being in some cases entire suppression of urine, with convulsions and coma. Instead of suppression, however, the kidneys sometimes seem to take on an undue amount of activity; but this is deceptive, for an examination of the liquid secreted will show it to be composed of crenated red blood-corpuscles, serum and other liquid elements of the blood, while the urea, urates and other normal constituents of the urine are sadly deficient, and hence may be explained the symptoms of uræmia in cases in which there *appears* to be sufficient urinary secretions. These cases die with uræmia, but what produces the uræmia is not clear. The strong and robust persons seem to succumb to the disease quicker than more delicate ones. The temperature is variable, usually high in the beginning, but falling by lysis or crisis until it frequently reaches the sub-normal degree of 96°.

The secondary are those cases which follow malarial diseases and which have been so well described by Dr. Loftin. These cases have seemed to me to be simply malarial hæmaturia and generally responded to treatment—few of this class die, whether you give quinine or not.

I wish to call attention to a case which I saw last fall, and which I am certain was a case of hæmorrhagic fever, so-called, without any hemorrhage at all. There were all the symptoms of the fever which I described under the head of primary, the patient dying within three days from uræmia, with suppression of urine. Careful examination failed to show any extravasation of blood, not even a purpuric spot being visible.

If the patient had lived I probably would have thought that it was a case of catarrh of the bile duct, but displaying, as she did, all the typical symptoms of the disease, and with such characteristic fatal termination, I am sure that the case was one of this type.

She was thirty-four years old, the mother of three children and had always

enjoyed the best of health. I would like to know if any of the members have met with similar cases; if not, I hope they will keep a look out and closely study the next case of pronounced jaundice they have which exhibits any of the symptoms of the disease.

As to prognosis, my experience is that the severe cases die in spite of treatment, while the milder forms get well, whether treated or not.

As to treatment, I have found no remedy which I could recommend. Turpentine, digitalis, potassium nitrate, citrate and other eliminants and stimulants are the ones principally used. I have had no better success with hydrastis than with any other drug, while quinine I have long ago discarded as being of no benefit; however, I must confess that I have never used such heroic doses as Dr. Loftin prescribes, and possibly that may account for my lack of faith in the old antimalarial standby in this disease.

Dr. Loftin did not wish to differ from Dr. Duffy, but if he were to go to a patient, no matter what kind of a hemorrhage he had, and he was to say that it had not been preceded by any malaria or any chill, he would not diagnose it as hemorrhagic fever. He believed that quinine in the hands of the laity has done more harm than good. The hemorrhage never makes him uneasy. He said let them have it; they generally stop in about twenty-four hours. He used quinine without limit. The first case he had was a little nephew of his. He found him one night in profuse hemorrhages, and in twenty-four hours he gave him two hundred and forty grains of quinine and nitrate of potash. When the boy recovered he said that he had not felt the amount of quinine given him half as much as he did twenty grains when given to him for other troubles. The poison of this trouble seems to consume the quinine, and in consuming the quinine the quinine aborts or stops the poison. He never gives less than thirty grains in a grown person, because he thought it did more harm than good. It seems to poison the red blood-corpuscles and causes people to be anæmic. He believed that the indiscriminate use of quinine had had something to do with hemorrhagic fever, because he thought it weakened the person given as the laity give it.

Dr. Duffy said that it was a rule that hemorrhagic fever is preceded by chronic cases of malaria, but he thought there are exceptions—that he would not exclude that diagnosis simply because there was no marked history of chills.

Dr. C. U. Richmond, of Manchester, suggests bistourage or subcutaneous torsion of the spermatic cord for the purpose of cutting off the blood-supply of the testis, causing its subsequent atrophy. This is done successfully in the lower animals.—*Ex.*

THE ANATOMY OF OBLIQUE INGUINAL HERNIA IN THE MALE WITH REFERENCE TO MACEWEN'S OPERATION.

BY RICHARD H. WHITEHEAD, M.D., Chapel Hill, N. C.

In accepting the kind invitation of the Chairman of this Section to write a paper upon the subject of The Anatomy of Oblique Inguinal Hernia with Reference to Macewen's Operation for radical cure, I expected to have the pleasure of demonstrating some dissections of the parts concerned. I very much regret that I have been disappointed in that hope, and shall have to content myself with a short verbal description.

In order that the testicles shall have the best possible blood supply, their arteries are derived from the abdominal aorta. The course of the spermatic vessels, from their origin to their destination, furnishes one of the most interesting objects of study in the anatomy of that "wonderfully made" creature, man. Passing down from the aorta behind the peritoneum the spermatic vessels come into relation on each side with the external iliac artery, which they cross from without inward, but so obliquely as to lie on the front of that artery throughout most of its extent. They are next confronted by the transversalis fascia, but just above and internal to the point where this artery changes its name to femoral there exists an opening in this fascia, the internal abdominal ring, so-called, and through this ring the spermatic vessels, joined by the vas deferens, pass, these structures being held together by a tubular prolongation of fascia from the margins of the ring, and together constituting the spermatic cord. The next two elements of the abdominal wall, the transversalis and internal oblique muscles, obligingly make way for the cord by arching above it. In this situation the fibres of the two muscles are conjoined and arise together from the outer half of Poupart's ligament, arch upward and inward, forming the "conjoined arch," and then, becoming tendinous, turn downward and inward, to be inserted under the name of the "conjoined tendon" into the crest of the pubes and the adjacent portion of the pectineal line. There now remains between the cord and its destination in the scrotum only the aponeurosis of the external oblique muscle, and here it finds another opening—the external abdominal ring. Note that this opening is not found just in front of the internal ring, but about an inch and a half nearer the median line, with its base at the crest of the pubes, and therefore internal to the spine of that bone. Thus between the two rings the cord lies in a canal which is just above, and parallel with, Poupart's ligament, about an inch and a half long, with the aponeurosis of the external oblique for its external wall, its posterior being furnished externally by the

conjoined tendon and internally by the transversalis fascia, which is here quite thin. Crossing the back of the canal between the transversalis fascia and the peritoneum is the epigastric artery, on its way to form the great anastomosis between the subclavian and the external iliâc arteries.

Thus the route for the descending testes and their blood-supply is accomplished, but with the result that a weak spot is left in the abdominal wall, through which a discontented gut may escape. To obviate this defect, nature makes the canal oblique, so that any increase of abdominal pressure pushes the posterior wall against the anterior wall of the canal, thus effecting a valve-like mechanism, which, in the majority of mankind, works in an satisfactory manner, very much in the same way that the ureter opens into the bladder.

Now, when rupture occurs, the normal anatomy of the inguinal region is materially changed—first the peritoneum, which normally covers the abdominal face of the internal ring, is pushed on down the canal by the descending bowel or omentum, and thus the hernial sac is formed; next the internal ring is gradually stretched and dilated, and finally dragged downward and inward, until it lies almost behind the external ring, thus destroying the valvular mechanism of the canal.

An operation, then, directed towards a radical cure of hernia, should aim at retrenching the size of the internal ring and at restoring the normal valve-like mechanism of the canal. Macewen claims that his operation fills both of these indications.

The important question of what disposition shall be made of the sac, is solved by him in a very ingenious way. If the sac be left in the canal, he says, it will act as a plug, and plugs dilate instead of obliterating the canal. If the sac be ligated and removed, there will still be left a puckering at the internal ring, which will probably be gradually dilated by the bowel, and thus the hernia be reproduced. Accordingly, having freed the sac, both in the canal and for about half an inch around the circumference of the ring, he introduces into it a purse-string suture, so that the sac will be thrown up into folds when the suture is tightened. The whole sac is then returned through the ring into the abdominal cavity, and the purse-string, having been tightened, is stitched into position against the abdominal surface of the ring, where it forms a convex pad, protects the ring and "sheds the intestinal waves back away from the opening." Then, by double stitches passed through the inner margin of the ring and of the conjoined tendon on the inside, and Poupart's ligament and conjoined arch on the outside, he diminishes the size of the internal ring and pulls it outward, thus restoring the normal valvular function of the canal.

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

May 14, 1895.

The President, William S. Gordon, M.D., in the Chair.

The President read a report of a case of Puerperal Sepsis, illustrating the advantages of local treatment.

Mrs. ———, a primipara, twenty years of age, was taken in labor on the morning of March 17th. The pains were irregular; but her health had been excellent in every respect, and at the onset of labor no untoward symptoms were present; her temperament, however, was excessively nervous and apprehensive.

The pains were inefficient, almost becoming suspended, and I was not summoned again until 2 a. m., on the 18th, when the symptoms still pointed to a protracted labor. I returned at 4 o'clock, and, for the first time, made a vaginal examination, finding the bag of waters ruptured and the head well down, but engaged in a rigid and incompletely dilated os. Believing that I would have some trouble, I called in Dr. Taylor, and, in the meantime, gave sufficient chloroform to deaden the pains.

By the time Dr. T. arrived the os had relaxed slightly under the anæsthetic, and the head was somewhat advanced, but the progress of the case was very slow, and our decision was to deliver with the forceps. This was done under anæsthesia very skillfully by Dr. T., with only a nick in the commissure, which was slightly enlarged by the passage of the shoulders.

In about ten minutes I expelled the placenta into the vagina by Credé's method, and traction on the cord completed the delivery.

Immediately afterwards there was a profuse hemorrhage, which was attributed to a cervical tear; but in spite of all effort to locate the lesion, we were frustrated on account of the free bleeding and the weakness and shock from which the patient suffered.

The hemorrhage was checked with hot water and ergot; recurred subsequently during an examination of the cervix, and was checked again by hot water. We then decided to do nothing more until the next day, when Dr. Taylor closed a moderate tear in the cervix with two sutures. The os had a boggy, bruised, mottled look, which neither of us liked. The lochia were normal.

When I called on the morning of the 20th, the patient informed me that she had had a chill at 2 a. m. I found considerable tenderness over the womb, tubes and ovaries—the left especially—and the temperature $103\frac{1}{2}^{\circ}$. Epsom salt was ordered to free purgation, turpentine stupes were applied

*Read before the Richmond Academy of Medicine and Surgery May 14, 1895.

and carbolated vaginal injections used. In the afternoon the temperature had fallen two degrees.

March 21.—Temperature about the same the whole day.

22.—Temperature 103° in the evening. Dr. Taylor saw her with me. No change made.

23.—Temperature $104\frac{1}{4}^{\circ}$ in the morning. Stitches removed; womb curetted, flushed out with bichloride solution and Blair's chloral thymol, and packed with iodoform gauze saturated with iodoform and glycerin. In four hours the temperature fell to $103\frac{3}{4}$. Stimulants and quinine were given.

After this the temperature varied from 104° to normal, which it reached April 2d.

From this time convalescence was well-established, and the patient has made an excellent recovery.

This was a case of puerperal sepsis, manifesting itself in metritis, salpingitis and ovaritis. Although the patient's pulse and facial expression were good throughout the whole course of the disease, there was decided lymphatic involvement and blood contamination, causing several hemorrhages from the nose. Neither Dr. Taylor nor I was guilty of any known sin of omission or commission so far as the cause of infection was concerned.

An interesting question to ask is, whether the os should have been sewed up at once or at all. The shock and exhaustion due to hemorrhage predisposed the patient to infection, and my belief is that the wounded os was the source of the trouble.

The main lesson to be learned from this case is the value of local treatment in puerperal infection. A certain amount of good was done by tonics, stimulants, full feeding and careful attention; but in my opinion the patient's life was saved by the surgical measures which Dr. Taylor wisely suggested, and, for the most part, skilfully executed.

The rapid subsidence of the hardness, tenderness and pain was far from what we expected; and, although we could hardly hope for perfect tubes after such damage, still it is too early to say exactly what benefit may not be derived from tonics and absorbents. The patient has been walking for several weeks, and is improving daily, while, at my last examination, the induration on the left side had decidedly decreased.

There were two other important lessons taught by this case. One was, never to trust vaginal douches to an untried monthly nurse, no matter what her reputation may be; and the other was, never to delay local measures when the temperature, after a reasonable interval, does not decline.

I am no routinist, for each case must be met with its own indications; but I am firmly convinced that the various forms of puerperal fever have largely a local starting point, and that the water must be thrown where the fire originated, and where it continues to burn the brightest.

It would be well if women could behave as animals after labor, walking

about and draining thoroughly, instead of lying down with a torn cervix dipping into a pool of pent-up lochia.

DISCUSSION.

Dr. H. H. Levy said that in many instances he had followed the line of treatment laid down by the President, but in many other instances this plan could not be followed, each case requiring a certain course, according to indications. He has seen the sulpho-carbolate of sodium accomplish excellent results in many cases where there were chills, sweating, etc. The Doctor mentioned an interesting instance in point.

Dr. Hugh M. Taylor said it had been his misfortune (he looks upon every such case as a misfortune) to see in consultation three cases of puerperal sepsis. There was no disease he more feared, none he endeavored more to prevent, and none that he thought called for more decided medical treatment. In most of the cases that had come under his observation he could assign the focus of infection to cervical laceration. He thought if some of those who advocated the do-nothing policy would look at some of these infected lacerations, mark how nearly they approach in appearance a foul, swollen, sloughing, infected sore seen elsewhere, they would appreciate the importance of rendering aseptic such a wound. They should remember that a continuous mucous membrane and rich lymphatic circulation present a most favorable condition for extension of the local septic condition and general septic infection. When sepsis originated in, or extended to the uterine cavity, its mucosa became pus-secreting, a condition of septic phlebitis and lymphangitis ensued, foci of septic infection occurred in the uterine walls, and extension to the tubes and their peritoneal investment was not infrequent. The sooner we look upon such a cavity as a pus-secreting and pus-retaining cavity, the quicker will be our appreciation of the importance of directing all our efforts towards removing necrotic tissue by curettement, and debris by irrigation and drainage. Not until the focus of sepsis is destroyed by sterilization can we hope to tide the patient along until the absorbed poison is eliminated.

Dr. J. S. Wellford thinks that the tendency is towards meddlesome midwifery—the use of the forceps, douches, packing, curette, etc., interferes with the processes of nature (which is fully capable of taking care of itself), and the introduction of sepsis is the result. He does not believe there is danger of sepsis from a tear, unless it be a large one. In tamponing the uterus we dam up every means of outlet, thereby bringing about trouble. We try to do too much. Some conservatism is necessary.

Dr. Taylor: The tendency on the part of surgery to invade the domain of midwifery has been often decried. Meddlesome midwifery and masterly inactivity embody principles as potent for harm as good. There is a time to

hold hands off, i. e., in the first stage of labor and in all stages where nature is equal to the task of delivery and subsequent restoration to health.

Twenty years ago the clarion voice of the teacher of obstetrics rang out in opposition to meddling midwifery and in favor of masterly inactivity. No words in the English language, perhaps, have done as much harm. Under the guidance of such teaching prolonged, exhausting labors, impacted pelvis, contused, sloughing soft parts, sepsis and dead children frequently resulted.

Masterly activity, when nature is unequal to the task, is the order of the day, and has almost banished that miserable trouble, vesico-vaginal fistula, and many other post-parturient ills.

MARK W. PEYSER, M.D., Secretary.

SARCOMA OF THE BRAIN SUCCESSFULLY REMOVED BY OPERATION.—(Geo. R. Murray, M.D., M.R.C.P., and W. G. Richardson, F.R.C.S., *Lancet*). The patient was a man of thirty-six years, with no specific or traumatic history, and who had had no severe illness. Without premonitory symptoms, as far as known, he was seized in February, 1894, with a slight attack of Jacksonian epilepsy. He stated that in this attack his left elbow was raised from his side, and that the forearm was pronated and supinated in the flexed position several times in rapid succession. The attack was limited to the left arm, and he was perfectly conscious all the time. This was repeated in nine days, and four days later a third came on. He continued at work for a week, when one day he felt cold and was seized with nausea, which was followed by a severe attack of vomiting. He then lost some power in the left arm, which became ultimately paralyzed. The leg became involved likewise, and attacks of vomiting continued. Pain settled in the right temporal region. There was well-marked, double optic neuritis, rather more advanced in the right eye. The vision was $\frac{1}{12}$; fields normal. The pupil acted, though not very briskly, to light and accommodation. Sensation to touch, pain, heat and cold was unaffected. The muscular sense was lost for the left arm. The knee-jerk was much exaggerated on the left; it was also more active than usual on the right. Ankle clonus could be obtained on the left side, but not on the right. July 1, 1894, the tumor was removed from the upper Rolandic region on the right side. The operation lasted one hour and was not difficult. The tumor was a sarcoma measuring three by two inches. The patient recovered, and eight months later had regained good use of the affected limbs.

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ROBERT D. JEWETT, M.D., EDITOR.

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All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

Drinking Water.

It is a strange fact that, while people will spend much time and money providing clean and suitable food, generally but little attention is paid to the water they drink. If the water be clear and cold they are satisfied, little thinking that disease and death may be lurking in each glassful. In no other way, probably, could the medical profession carry out successfully their humane effort to prevent disease than by instructing the people in regard to the necessity for providing wholesome drinking water, and telling them how it may be had. Could the deaths resulting from the ingestion of impure water and water

infected by the germs of disease be prevented, there would be nearly 1,000 lives, doubtless, saved to the State each year.

The supply of drinking water in the eastern part of the State is derived generally from shallow wells fitted with wooden curbs. These wells are from ten to twenty feet deep, but during the rainy season become so nearly full that the water may be dipped out. These are the people who wear the sallow complexion and suffer continually from chills and fever. It is among these that thousands of lives could be saved by the substitution of a supply of pure water. And this does not apply to the rural districts only, for often in

the towns we find the same thing. How common it is to hear a man boasting of the excellence of the water from his well, simply because it is clear and cold. Another will go on in ignorant bliss because his water had been examined by the chemist and was "the purest water he had ever analyzed." Let the people understand that no chemical analysis ever yet discovered in a specimen of water a single disease germ, and that the only way to be sure of the purity of the water is to make it impossible for germs to get into it or to boil it.

The ideal source of water supply is the artesian well, and this is the only hope upon which the seaboard towns of the State can build in their effort to secure good water. Cities to the north and south of us have resorted to this source and have been well repaid by the improved health of their citizens. The municipal authorities should make appropriations for the purpose of boring deep wells, and when a supply of good water is found in abundance, it should be furnished to consumers at as small a price as possible. If, unfortunately, the city does not own its system of water works, the corporation should be required to purchase the well and supply its water to consumers.

The next desirable source of supply is the cistern. This, again, is expensive and out of reach of the great majority of the people. If properly constructed and cared for, a cistern will furnish a practically perfect drinking water; but there are few owners of cisterns who seem to have any idea of the importance of caring for them; especially do tenants neg-

lect them, though they are the ones to use the water and suffer if it is impure. The cistern is built, the water turned on and never thought of again until a leak or an unusually dry term exhausts the water. No water should be admitted to the cistern except that which falls between October and March, and the cistern should be large enough to contain sufficient water to supply the family through the remaining six months. Then, again, the first water that falls should never be allowed to run into the cistern, for it is filled with the impurities washed from the atmosphere and from the roof, and is probably worse than the water from the ordinary well. The pipe to the cistern should be kept *shut off* at all times except when water is being *intentionally* admitted, which should not be until the roof has been thoroughly washed. Especially in Wilmington, where the buzzards are given full sway, and deposit garbage and the contents of their over-filled maws upon the roofs, should this rule be observed. The best form of filter is made of charcoal placed upon stone chips, and the coal should be renewed and the stone chips washed and sunned at least once in two years. Some persons build their cisterns in two compartments, the dividing wall being of soft brick and serving as a filter, the water being received into only one compartment and passing through the porous brick. These brick soon become very foul and the water, after passing through, is worse than before. They are unsanitary. The cistern itself should be thoroughly scrubbed out every one, two

or three years, as less or more care has been taken of it.

Following the cistern, the most desirable water supply is from deep *driven pumps*. These should be driven down sufficiently deep to be beyond the influence of surface water.

In a recent paper on the Relation of Drinking Water to Malaria, Dr. Richard H. Lewis, the Secretary of the State Board of Health, collected a long array of data which showed

generally improved health, following the substitution of driven pumps for open wells. The paper should be placed in the hands of every householder in the eastern section of the State, at least.

The experience of many medical men who have made the test is, that a man may live in the most malarious sections and remain free from the disease if he will confine himself strictly to pure, uncontaminated water.

Foreign Correspondence.

LONDON LETTER.

Editor N. C. Med. Journal :

Many of your readers, no doubt, have enjoyed the advantage of study in foreign lands as well as at home, while some, perhaps, are contemplating a trip abroad as one of the pleasures of the future, and to such an account of London, as a medical centre, may not be without interest.

Your correspondent left the States nearly three months ago for the purpose of studying the practice of the special hospitals in England and Germany devoted to the treatment of diseases of the eye, ear, nose and throat, in the hope of thereby enjoying superior advantages, or at least of gaining that profit which must be derived from seeing a variety of techniques in any line of business and from contact with many men and many minds. Having heretofore experienced the excellent facilities of

New York and Baltimore, and armed with numerous letters of introduction to prominent professional men here, I must say, in spite of many assurances to the contrary, there was a feeling that, "owl-like, we might be blinking at what's within our ken" in making a transatlantic voyage in search of better ones. It gives me pleasure, therefore, to detail the advantages of London, having spent nearly two months here now, to show that such misgivings were groundless, and to state that the opportunities to be obtained in the world's greatest city are commensurate with her size, especially in the special branches above mentioned.

The Royal London Ophthalmic Hospital, now commonly known as the Moorfields, is the largest eye hospital in the city, having a service of over five hundred out-patients daily. To manage this material intelligently and satisfactorily requires

an executive staff of nine surgeons and numerous assistants. The hours during which the practice is carried on are peculiar to London, I believe, namely, from 8 a. m. to 2 p. m.

This has a distinct and unique advantage to those pursuing at the same time the study of diseases of the ear, nose and throat, as the practice of the Golden Square Throat Hospital, the one founded and fostered by the great Sir Morell Mackenzie, begins at 2:30 p. m. and ends at 5 p. m. In this way the visitor is able to see, and, if he is lucky, to assist in the practice of both hospitals every day with perfect convenience.

Any one contemplating a visit to London to spend several months in the study of special or general branches of medicine, should always begin such work either on May the first or October the first. On these dates the general courses of the London Post-Graduate School and special courses at the Moorfields, given by the eminent surgical staff begin, and, as some of the practical classes are limited as to numbers, if he arrive later he may not be able to get admittance to them. Besides, at the Moorfields and at the Golden Square on these dates Junior Clinical Assistants are nominated by their respective councils, and if one is fortunate enough to obtain such a position it will prove to be of inestimable value. The writer was fortunate in being appointed at the Moorfields, and in this way has been working regularly besides taking the courses already mentioned.

A course is given on Clinical Ophthalmoscopy by Messrs. Gunn, Law-

ford and Silcock, one on Errors of Refraction by Mr. Lang, and one on External Diseases of the Eye by Mr. Morton. These are practical lectures covering the whole field of ophthalmology, with numerous patients to illustrate every form of disease or refractive error, and besides being supplemented by lantern pictures, microscopic slides and microscopical sections of excised eyes to show the pathological changes peculiar to each. These extend through May and June; the fees are reasonable and the classes so limited as not to interfere with their unique opportunities for personal observation and examination.

There is also a distinct series of lectures given at the Moorfields by distinguished specialists as a part of the London Post-Graduate courses. These extend through May, June and July, and do not conflict with the others above mentioned. All of them have been so far attended by men coming from nearly every section or country of the globe; one of them, who has been studying on the Continent for a year, told me that they were superior to anything he had yet heard, and in the way of illustrating morbid condition and ophthalmoscopic diseases, they were not excelled anywhere.

Four or five lectures are given a week; the didactic part lasts about half an hour and the class then examine the patients in the dark room for about an hour and a half—some are given in the evening, and the aggregate cost is about sixty dollars. At these classes, besides dozens of the more common ophthalmoscopic and external diseases, there have been

shown real cases of *moluscum contagiosum*, xerosis conjunctivæ, dermoids of the cornea, affections of the frontal sinus, micro- and buphthalmic eyes, persistent hyaloid artery, capsulo-pupillary membranes, congenital anterior synechia, rupture of the choroid and acute detachment of the retina.

To give an idea of the surgical practice of the hospital, let me enumerate the operations performed in the amphitheatre during the month of May.

There were forty-five cataract extractions, thirty-nine needlings, some for congenital cataract, the majority for opaque capsules, ten iridectomies for glaucoma and twenty for other causes, ten advancements and ten tenotomies for strabismus, nine excisions, eleven lid operations, two sclerotomies, three operations for anterior synechia, three for orbital tumors, two for severe lachrymal obstruction, two for diseases of the frontal sinus and one for neuralgia of the fifth nerve.

The innumerable minor operations are all performed in the out-door department by the assistants. The surgeons give more of their time to the work and do it more deliberately than in the hospitals of our own country. A distinct teaching atmosphere pervades the Royal Ophthalmic and the varieties of technique for advancements, extractions and tenotomies are interesting and instructive.

Ether is given in preference to chloroform almost universally, and always by a patent machine, into which the patient breathes. The senior house gives the anesthetic as

being the most experienced. I believe we usually delegate that delicate duty to the least experienced. Mr. Silcock, in the course of conversation, mentioned that he preferred chloroform whenever the weather was warm, because its rapid evaporation prevented its being given in a too concentrated form, but that in cold climates he thought ether the better. This struck me as an original and rational explanation of the respective preferences of our Northern and Southern States for one of these two anesthetics. In most hot countries chloroform is certainly used.

All of the cotton used at the Moorfields for closing eyes after operations, etc., is dyed blue or red, the former medicated with the bichloride, the latter with the cyanide of mercury, the color simply distinguishing them. I can see no superior advantage to be obtained by these, if asepsis and antisepsis be properly carried out before and after, and the white cotton looks so much cleaner and purer that I should much prefer it as a dressing.

While no parade is made of antiseptic precautions, all the instruments are thoroughly sterilized with boiling water and the conjunctiva and eyelids well irrigated with a bichloride solution before, during, perhaps, and after the operation.

The amphitheatre in which all operations are performed, including cataract, is small, but admirably arranged. Mr. Nettleship operates for cataract without either speculum or fixation forceps, using instead his fingers. All of the surgeons do an iridectomy invariably, with all ex-

tractions, and one of them, Mr. Guun, even does a preliminary one some weeks before-hand in all cases.

Mr. Morton, whose ophthalmoscope is universally used here and much appreciated also in the States, is a skillful operator and a most charming gentleman. He is also the author of an excellent book on Errors of Refraction, which is very concise and gives a practical and thorough account of the objective methods of correcting them, namely, by the retinoscope and ophthalmoscope, as well as the subjective by the test lenses. Patients with errors of refraction are largely on the increase and the opportunities for experience in that department of ophthalmology are very great here. As an assistant under Mr. Morton, I have a large number of these to correct by the retinoscope and ophthalmoscope.

Retinoscopy is chiefly relied upon here and is most valuable in detecting simple compound or mixed astigmatism.

The ophthalmometer, the expensive instrument now so much in favor in New York, is not used at all.

Very little attention is paid to the correction of small degrees of heterophoria for the relief of asthenopic symptoms. In fact, the practice of graduated tenotomies and the use of prisms for the correction of muscular insufficiencies, especially exo- and esophoria, is rather laughed at. One lecturer remarked, in reviewing the subject, that the number of tenotomies to effect a cure in America was entirely dependent upon how many the patient could pay for. Asthenopia is thought to be due almost

entirely to ametropia and its correction always gives relief. Considerable stress is laid upon, as a means of diagnosis, and much interest taken in the existence of scotoma for certain colors due to impairments of the color sense as being more or less characteristic of certain disease attended with amblyopia. The perimeter is used in the usual way for taking the fields of vision and restriction of the nasal side is always looked upon with suspicion, even if there be no increase of tension. Some diseases common enough with us are conspicuous here by their absence—in all the thousands of cases I have seen there has not been a single one of pterigium and but few of trachoma.

Owing to the difference in the working hours, as before mentioned, every day after leaving the Moorfields and getting lunch, one can go to the Golden Square Throat Hospital. Here about two hundred out-patients present themselves daily, with diseases of the ear, nose and throat. Several separate tables are provided for the assistants and students, where the patients can be examined, diagnosed and treated. During the last months I have seen many rare cases and numbers of those showing all the morbid conditions of these organs.

The fee for the hospital practice for six months is thirty dollars. This is the most widely-known, as well as the largest, special throat hospital in London and is doubly interesting on account of the late Morell Mackenzie's connection with it.

Deafness in children is generally attributed to post-nasal adenoids and

they operate on many cases here with ease and rapidity under chloroform, and apparently with great success.

Both of the hospitals in question, of course, treat large numbers of in-patients, and both are taxed to accommodate all the applicants for their gratuitous charity.

One should, of course, always bring his own instruments for diagnosis. Board in London is comparatively cheap and very comfortable, but travelling about the city amounts to a serious item on account of its size. This latter expense can be easily avoided by selecting a location conveniently near the hospitals you decide to attend. As every one knows, it is best to stick to one or two, if any systematic work is to be done, for the loss of time is very great in moving about, and a "rolling stone gathers no moss."

Of the general hospitals here every

doctor is familiar with the names of St Thomas', Charing Cross and Guy's, as each has been the source of many of the most beneficent, as well as the greatest, discoveries in medicine. I can only hope to visit these casually, and as I have not yet done so my comments upon them must be reserved for a future letter.

In contrasting transatlantic post-graduate work with the same in the States, I would say that the facilities here are equally as great, and perhaps superior; but when, in addition, the educational advantages of travel are considered, it is certainly a fact that studying abroad is a most profitable, as well as pleasant, way of increasing and broadening one's views of medicine.

EDWARD F. PARKER, M.D.,
of Charleston, S. C.

London, June 15, 1895.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From June 27, 1895, to July 10, 1895:

Gandy, Capt. Chas. M., Assistant Surgeon, is granted leave of absence for two months, to take effect upon his relief from duty at Fort Yellowstone, Wyoming.

Huntington, Lieut. Col. David L., Deputy Surgeon General, is granted leave of absence for one month, to take effect upon his relief from duty in the Department of the Colorado.

Ewing, Capt. Chas. B., Assistant Surgeon, is granted leave of absence for two months.

McCulloch, 1st Lieut. Champe C., Assistant Surgeon, is granted leave of absence for one month, to take effect about 1st July.

Taylor, Major Blair P., Surgeon, is granted leave of absence for one month, to take effect between July 1st and 10th, with permission to apply for an extension of ten days.

Reynolds, 1st Lieut. Frederick R., Assistant Surgeon, now at Fort Sam Houston, will proceed to Fort Bliss, Texas, not later than July 1st, and report for temporary duty during the temporary absence on leave of Major Blair P. Taylor, Surgeon.

THE NAVY.

For the week ending July 13, 1895:
Crandall, R. P., P. A. Surgeon, de-

tached from the U. S. R. S. "Vermont" and ordered to the New York Navy Yard.

Pickrell, George McC., ordered to Washington Hospital.

Percy, H. T., P. A. Surgeon, detached from Naval Hospital, Washington, and to the Navy Yard, Washington, D. C.

MARINE HOSPITAL SERVICE.

For the 15 days ending July 15, 1895:

Bailhache, P. H., Surgeon, to assume command of Camp Low Quarantine July 5th, 1895.

Hutton, W. H. H., Surgeon, to report at Bureau for temporary duty July 12th, 1895.

Wheeler, W. H., Surgeon, relieved from command of Camp Low Quarantine July 5th, 1895.

Banks, C. E., P. A. Surgeon, to proceed to Detroit, Michigan, on special temporary duty July 5th, 1895.

Goodwin, H. T., P. A. Surgeon, granted leave of absence for thirty days, July 12, 1895.

Vaughan, G. T., P. A. Surgeon, granted leave of absence for seven days, July 6, 1895.

Stoner, J. B., P. A. Surgeon, to proceed to Detroit, Mich., for temporary duty, July 12, 1895.

Eager, J. M., P. A. Surgeon, to proceed to Southport, N. C., and assume command of Quarantine Station, July 6, 1895.

Stewart, W. J. S., Assistant Surgeon, granted leave of absence for nine days, July 5, 1895.

Wickes, H. W., Assistant Surgeon, granted leave of absence for twenty-three days, July 5, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Rush Medical College has established the degree of M.D.C.—*Doctoribus Medicinæ Civitatis*—"Doctor of State Medicine."

Dr. Bransford Lewis, of St. Louis, having resigned his position with the Missouri Medical College, has been elected Professor of Genito-Urinary Surgery at the College of Physicians and Surgeons, and Genito-Urinary Surgeon to the Baptist Hospital.

Messrs. P. Blakiston, Son & Co. announce that they have in preparation for early issue an authorized

translation by Dr. Albert B. Hale, of Chicago, of a Hand-Book of Diseases of the Eye, by Dr. A. Eugen Fick, of the University of Zurich. This is one of the most complete, thorough and compact of text-books. Among its other merits it contains a number of very handsome colored illustrations, not of rare or unusual cases, but of practical matters that will greatly aid the student and be of much service to the practitioner. The retail price will be from \$3.00 to \$4.00.

The New Mexico Territorial Board of Health has been organized. It

consists of seven members, appointed by the Governor, to serve two years. The different schools of medicine are represented as follows: regular four, homeopathic two and eclectic one. They are to constitute a Board of Medical Examiners. Examination is not required of graduates of regular medical colleges. The fine for practising illegally is one hundred dollars for the first offense and two hundred for each subsequent offense. Section 7 gives the following definition of to "practice medicine": "For the purposes of this act, the words 'practice medicine' shall mean to investigate or diagnose, any physical or mental ailment of any person, with a view to affording relief, as commonly done by physicians; to suggest, recommend, prescribe or direct, for the use of any person, any drug, medicine or appliance, apparatus or other agency, whether material or not material, for the cure, relief or palliation of any ailment or disease of the mind or body or for the cure or relief of any wound, fracture or bodily injury or deformity, after having received, or with the intent of receiving therefor, either directly or indirectly, any bonus, gift or compensation: *Provided this act shall not prevent people who are entitled to sell medicines under the laws of this Territory from recommending the same, but nothing in this act shall be construed to prohibit gratuitous service in cases of emergency or the domestic administration of family remedies, or women from practising midwifery; and this act shall not apply to surgeons in the service of the United States in the discharge of their official duties.*"

The officers of the Board are as follows: President, W. R. Tipton, M.D., Las Vegas; Secretary, Francis H. Atkins, M.D., East Las Vegas; Treasurer, J. H. Sloan, M.D., Santa Fe.

The following is the health report of Wilmington for June, 1895:

Mortality:

	Whites.	Col.	Total.
Population.....	9,000	13,000	22,000
Total deaths.....	16	32	48
Annual death rate represented.....	21.3	29.5	26.2

The memory of the late Henry D. Polhemus is to be perpetuated by the erection of a dispensary building in connection with the Long Island College Hospital in Brooklyn. It will be the gift of Mr. Polhemus's widow, who has purchased three city lots for the purpose. The building will be five stories high, and will be known as the Polhemus Memorial Dispensary. The estimated cost of the structure, with its furnishings, is \$250,000, and in addition to this Mrs. Polhemus will present the dispensary with an endowment fund of \$250,000 for its maintenance.—*Boston Med. and Surg. Jour.*

Mr. E. G. Ravenstein, the eminent English geographer and statistician, has made some calculations to find when the earth will be unable to find nourishment for its population and they will be forced to cannibalism or starvation. According to him, when the number exceeds 5,994,000,000, or, in round numbers, 6,000,000,000, this emergency will arise, and Mr. Ravenstein believes the population of the globe will reach this figure in 284

years more. He points out that the average decimal increase is 8 per cent., divided as follows: Europe, 8.7 per cent.; Asia, 6 per cent.; Africa, 10 per cent.; Australia and Oceanica, 30 per cent.; North America, 22 per cent.; South America, 15 per cent.—*Jour. Amer. Med. Ass'n.*

M. Le Gendre, of Paris, in an article on "Dangers of Athletic Sports in Childhood," showed that the period of growth created certain morbid predispositions, as a tendency to excessive arterial tension, manifested by palpitations, epistaxis, pains in the head; in arthritic individuals, susceptibility to chill when the body is in a state of perspiration; in neuro-arthritic persons, a tendency towards atony of the stomach, increased by the abundant ingestion of fluids; in others, of nervous temperament, a predisposition to headaches, tics, chorea and a craving for violent distraction. Under such conditions it is easy to understand how excess in physical exercise may be followed by serious consequences. After violent games of foot-ball, tennis, or the too prolonged use of the bicycle, the fever of over-exertion may supervene, with the complications that accompany it, as prostration, curvatures, pain, osteomyelitis, dyspepsia, with great anorexia, dilatation of the heart, palpitations, syncope, true asystole, and possibly hypertrophy, articular inflammation or typhlitis. The author therefore believed it of great importance for parents to have their children examined before allowing them to give themselves up to any particular sport, and to forbid it if there be any trouble of the circulatory, loco-

motor, digestive or nervous system; to insist upon progressive and gradual increase of the exercise, whatever it be; and, while encouraging athletics and gymnastics, to forbid any competition in these sports.—*Ex.*

A wise old doctor, for the benefit of his health, travelled around the country in a caravan, in which he lived, stopping for short periods at the larger towns. He had a young lad for an assistant, who was more or less quick and intelligent, but rather inclined to jump at conclusions. The doctor taught him a little medicine whenever he could spare the time, and he learned considerable, but diagnosis was to him still a mystery, especially in some cases, when the wise old doctor had used his eyes to detect the source of the illness.

They were staying for a few days in the town of B—, and the doctor had been in some demand, having at a previous visit secured a reputation by some apparently marvellous cures. His young assistant accompanied him on one occasion, when the doctor had pronounced the patient sick from eating too many oysters. This puzzled the lad, and when they left the house he asked his master how he knew the patient had been eating oysters. "Very simple," his master replied; "I saw a lot of oyster shells in the fire-place and the answers to a few questions were all I needed to make a diagnosis."

"One day, his master being absent when a call came, he determined to answer it and see if he could diagnose the case. He returned shortly after and triumphantly told the doctor that the man was sick from eating too much horse.

"A horse, you stupid fool!" cried the irate doctor. "What do you mean?"

"Why, master, it could not be anything else, because I saw a saddle and stirrups under the bed!"—*Ex.*

Reading Notices.

For a number of years it was our privilege to be able to give almost exclusive attention to the study of physiology. Nothing can be more fascinating either to pupil or teacher. During all this time, and even up to the present day, we had to believe that "The principal object of the saliva is to moisten the food, and thus aid mastication and deglutition." And yet, we had to face the fact that an enormous quantity of saliva was secreted every twenty-four hours. It appeared almost like a waste of the forces of nature. We had to believe that the moment this saliva reached the stomach it became inoperative. But now all this is about to be changed. Although Frierichs came to the conclusion a number of years ago that salivary digestion continued in the stomach, yet his work was practically lost sight of. Now Dr. J. H. Kellogg, of the Battle Creek Sanitarium, has just published the report of some extensive experiments in his Laboratory of Hygiene on starch digestion. Dr. Kellogg examined the contents of the stomach, after a test meal, in 4,875 cases. In 669 of these cases he found the starch had been completely converted into sugar. Only in 1.8 per ct. of the cases did he find there was little or no conversion of the starch. This certainly must be accepted as conclusive, and hereafter we must teach that the digestion of starch takes place in the stomach by the aid of the saliva ferments. Clinically this will be of great value and must result in a number of changes in our ideas of diet.

It is only within a few weeks that a chemist of Brooklyn, New York, Prof. E. H. Bartley, published an article in the "New York Medical Journal" setting forth the dangers of having digested starch in the stomach. Our readers may recall the fact that a number of years ago a committee

on American Chemists were asked to report upon the dangers of taking a predigested starch into the stomach. Glucose was becoming such a generally distributed article, and was so largely used in the manufacture of confectionery that this committee was asked to report upon its effects on the system. The report was both exhaustive and conclusive that no deleterious effects would follow its use, even in large quantities. But Prof. Bartley has recently taken exception to this report. This is a very important question, for it is a fact that to-day the best candies in the world contain a large amount of glucose; while the most popular beer on the market has recently been shown to contain a larger proportion of glucose than any other brewed in this country.

It is very interesting to analyze some of the statements of Professor Bartley; for instance, he says that milk sugar and cane sugar are "intended" as foods in preference to grape sugar, because the former require digestion before they can be absorbed. It is safe, then, to reason that the more difficult a food is to prepare for absorption, so much the more was it "intended" as a food: therefore, boiled pork and cabbage were "intended" as foods in preference to the more easily digested eggs and milk! . . . For a long time there has been a growing sentiment in Germany that diabetes has not been properly treated. Hirschfeld believes that diabetic coma is favored by the exclusion of carbohydrates in the diet. Schmitz allows his diabetic patients a small quantity of albumen, while he orders the free use of food containing starch, and fat in large amount. Many American physicians are following this line of treatment with better results than heretofore. We must therefore conclude that the treatment of diabetes is bound to undergo a marked change in the near future.—*National Medical Review.*

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Original Communications.

DEMONSTRATION OF A NEW METHOD OF APPLYING PLASTER OF PARIS IN THE TREATMENT OF FRACTURES.

BY HERBERT A. ROYSTER, A.B., M.D., Resident Physician, Mercy Hospital, Pittsburgh.

In response to an invitation from the Chairman of the Surgical Section, I desire to bring to your attention a recently devised method of applying the plaster of Paris splint in the treatment of fractures. This method was original in its conception and in its practical details with Dr. J. J. Buchanan, of Pittsburgh, Pennsylvania, from whom I first learned it and to whom I am indebted for the privilege of this demonstration. The value of this splint is well-recognized by those who have had occasion to test its efficiency in the large surgical service at Mercy Hospital, where it has been exclusively employed for the past year and a half.

Its mode of application is thus described by Dr. Buchanan: "The material required is the ordinary crinoline bandage, into whose meshes plaster of Paris has been well rubbed. The method of application is extremely simple. . . . The length of the splint desired should be marked on a table. The width, also, should be laid off, taking the full semi-circumference at the widest and narrowest points as a measure. . . . The proper size having been marked off on the table, the plaster bandage, soaked and squeezed, but still dripping, is unrolled and made to traverse the figure laid off, from end to end, covering the entire surface with from four to eight layers of crinoline, according to the strength required. A piece of muslin or Canton flannel is then applied to the upper surface of the plaster and the splint turned over so that the flannel lies next to the table. The edges of the flannel are trimmed, leaving a margin of half or three-quarters of an inch beyond the border of the plaster on every side. This border is then turned down and used as a binding for the splint, which is ready for application to the bare limb, the

*Read before the North Carolina Medical Society, May 15, 1895.

flannel surface next the skin. The limb is elevated and held in the position which it is desired to retain, the plastic splint moulded accurately to it . . . and fixed in place by circular turns of a plain muslin or gauze bandage. The limb is lowered and held in proper position on a pillow for a few minutes till the plaster 'sets.' With good plaster this occurs in fifteen to thirty minutes. This splint can be easily removed by cutting the circular turns of the plain gauze bandage, should the limb swell or shrink. The application of a fresh circular bandage renders the splint as firm as before."

The advantages of this splint over the more common way of applying plaster of Paris are readily perceived and may thus be enumerated:

- (1) Its removable character.
- (2) Its adjustability.
- (3) The cleanliness of application.
- (4) Its safeness as regards circular constriction.
- (5) The facility and thoroughness with which antiseptic treatment can be carried out with it.
- (6) The non-necessity of interposing any protective between skin and splint. (Buchanan.)

My individual experience in the use of this splint includes 37 cases, and my personal observation extends over a still larger number. Simple and compound fractures of the leg constituted by far the largest class in the list; in the latter variety the splint proved to be particularly valuable. The skin-opening, if a compound fracture of the leg, being generally, as is well-known, on the anterior surface, since it is here that the tibia lies subcutaneously, the wound, after having been thoroughly disinfected, may be dressed with perfect antiseptic precautions, the plastic splint applied to the posterior half of the limb, and subsequent change in the dressing be made without disturbing the relation of the fragments in the slightest degree. Its superiority over the fracture-box in this instance consists in its greater cleanliness and closer apposition of the fragments. Indeed, it has been frequently seen that this apposition is too perfect, not giving that limited freedom which sometimes materially aids union. This latter point is still under consideration.

COCAINE IN CHLOROFORM NARCOSIS.—Rosenberg, at a recent meeting of the Berlin Medical Society, advised the anæsthetizing of the mucous membrane of the nose with a spray of cocaine solution before the administration of chloroform. By this means anæsthesia is more readily induced, and reflex action on the heart is prevented. Cocaine is an antidote to chloroform, and, therefore, its absorption would probably lessen the danger of the latter. —*Canadian Practitioner.*

REPORT OF A CASE OF INTESTINAL PERFORATION.

BY R. H. WHITEHEAD, M.D., Chapel Hill, N. C.

The case which I am about to report to you is so different from anything that I have ever seen in my practice, that I have thought it not unworthy of being recorded. Moreover, I do not feel certain as to its nature, and shall welcome expressions of your opinion on that subject.

The patient was a young man, about 18 years old, who entered the University last September. He gave a history of severe suffering from dyspepsia during the past summer, and had found it necessary to live almost solely on milk and crackers much of that time. He had recently improved, and, being a very ambitious fellow, had insisted upon entering the University. He stated that he had almost constant pain in the abdomen. This pain was often severe and was not limited to any particular part of the abdomen, which was flat and not tender to pressure. He had no diarrhoea, and was positive that he had passed no blood, mucus or pus from the bowels.

There was no objective symptom that I could detect except anæmia, which was striking.

He was so anxious to pursue his studies that I consented to his entering college on the conditions of light study and withdrawal in case he did not improve. He did improve, to some extent, for about a month, when he was suddenly taken sick with what seemed to be an attack of cholera morbus. These symptoms rapidly passed away, and on the following day I permitted him to sit up. A few hours after leaving his bed he was seized with violent pain in the epigastric region, tympanitis rapidly developed to such an extent as to obscure the liver dulness, and the temperature rose to 103° F. He lived five days, and died with all the symptoms of severe septic peritonitis.

I had suspected a perforation of the appendix, or, perhaps, of the duodenum; so that I was much astonished when I opened the abdomen post-mortem to find, not one, but a great many perforations of the small intestine extending from the duodenum to the colon. The appendix was apparently not diseased. The perforations varied in size from that of a pin-head to that of a garden pea. Some were situated on indurated bases, others had ragged, gangrenous margins. In several places the wall of the intestine was much thickened, hard and contracted, as if by cicatricial tissue. The mesenteric glands were somewhat enlarged. There were a few soft recent adhesions. The abdomen contained no pus, but its entire contents presented that livid hue which we see in the worst cases of septic peritonitis. I regret to say that no microscopic or bacteriological examination was made.

This is certainly not the usual history of any of the forms of intestinal perforation with which I am acquainted. The supposition which best explains the case to my mind is this: that the patient had chronic intestinal tuberculosis, as evidenced by the indurated bases of some of the ulcers and the cicatricial remains of others, that from some cause or another an acute inflammation was lighted up, leading to perforation of one or more of the ulcers, thus causing a septic peritonitis, which, in its turn, may have produced the perforations which had thin gangrenous margins.

THE CARE OF THE INSANE AND THE TREATMENT AND PROGNOSIS OF INSANITY.

BY P. L. MURPHY, M.D., Superintendent of the North Carolina Hospital,
Morganton, N. C.

The subjects mentioned as the title of this paper can only be briefly dwelt on in the time allowed. They will be dealt with in a general way, and in such a manner, it is hoped, that will be interesting, if not instructive, to the general practitioner. The subjects will be treated separately, as far as possible.

All civilized States or communities make some kind of provision for the care of their insane, usually in hospitals and asylums. These terms mean in America very much the same thing, the tendency being to use hospital in preference, for the reason that insanity is now universally believed to be a disease, and is to be treated by physicians, whether by drugs or other means. The old, and at one time common, idea that an insane asylum was merely a place for the detention of persons who are dangerous or otherwise objectionable, to be at large, is fast giving way to the more modern belief that insanity requires, as other diseases, medical treatment.

The popular opinion that asylums are places of dark cells, of chains, of cruel and inhuman treatment, is slowly but surely giving way to the hospital idea, where the unfortunate inmates have the kindest attention and the best treatment. The former keeper is now an attendant, or, what is better, a nurse. Training schools for nurses are being established in most of the best hospitals; in short, everything is being done that can be to foster the idea that persons afflicted with the disease (insanity) ought to have, and do have, the most careful and skillful medical treatment.

Other modes for caring for the insane are in use, namely, private institutions, in colonies, the Scotch or boarding-out system, alms-houses and jails, or outside of an asylum, technically called "single treatment."

A mere mention of these different modes of caring for the insane, except the last, will be sufficient to answer the purposes of this paper.

Private institutions were established to care for a certain class of patients, principally the wealthy, who wish to have better or more expensive apartments than State institutions furnish, or who, for a variety of reasons, do not desire to mix with the class who are sent to public hospitals. They are almost universally under the care of physicians.

The colony of Gheel, which may be taken as the type of all other colonies, has been known since the 17th century. "The legend of St. Dymphna attracted lunatics to Gheel from time immemorial with a view to cure by

*Read before the North Carolina Medical Society, May 15, 1895.

miraculous agency. The lunatics who arrived in the colony were dependent on the church called in Flemish 'Zie ken kamer' (infirmary) and were present at the religious services which should deliver them from their malady through the intercession of the Virgin Mary. When the patients did not recover their reason after a lapse of nine weeks, they were often left with the inhabitants to wait for the next festival of St. Dymphna."

This custom seems to have been the origin of the system of family treatment which has continued at Gheel for several centuries. This system has undergone modifications since—the colony has been subjected to lunacy laws, principally the establishment of a hospital thirty-five or forty years ago. But long before this the lunatics were regarded as patients.

Persons who become greatly excited, or prove unmanageable in the families, or have grave inter-current maladies, are sent to the hospital.

The "boarding-out," or the Scotch system of caring for the insane was, as its name indicates, first established in Scotland. The Scotchman, with his usual thrift and yet humane spirit, undertook to care for the insane in a cheaper manner than in hospitals, which are so expensive to build. The law requires every lunatic to be sent to the proper asylum, unless his removal has been dispensed with by the General Board of Lunacy, who have charge of all these cases in Scotland. Such cases as, in the opinion of the Lunacy Board, do not require hospital treatment, are boarded out in private families. If any of these should become violent, or need hospital treatment, the Board orders his return to the hospital. The patients are visited four times a year (oftener in case of sickness) by the parochial medical officer and twice a year by an inspector of the poor.

This plan has been adopted by the Massachusetts law in 1885 and partially so by Wisconsin, perhaps at a later date. I know of no other State using this system.

Care for the insane in alms-houses is almost universally condemned, especially in such alms-houses as are common in our States. The system has nothing to recommend it except the lessened cost, which is conclusive evidence of improper care.

Jails are used for the temporary custody of dangerous lunatics awaiting proper commitment to the hospitals, which course, while objectionable, seems to be unavoidable in many instances. It is to our credit in North Carolina that nothing but necessity compels it. In the Western Hospital district I know of but one case confined in jail, and that is a criminal case.

Home care, or the treatment of single patients outside of an institution, is for the general practitioner the only practical point under this head of the subject. What cases should be treated at home, or outside of an asylum, is oftentimes a very perplexing question, and, it may be added, a very important one, for, rightly or wrongly, there is a stigma attached to a person who

has been an inmate of an asylum. That this odium is rapidly on the decline is true, but as long as such an opinion does exist, it is clearly our duty as physicians to save our patients from it if possible. It is, of course, proper to consider the damage likely to occur by such a step, and act accordingly. Young men and women often have their lives blighted and their future prospects injured by being sent to an asylum when they might have been restored by "single treatment."

Many young mothers break down in their first confinement and rapidly recover if properly treated. We will surely confer a great blessing on them if they can be relieved outside of an institution.

To properly arrive at the answer to the question, What cases can be treated as "single patients," I will first attempt to show those whom we cannot hope to care for at home—in other words, make our diagnosis by exclusion. It will be found that the number whom we are able to give "single treatment" is exceedingly limited.

In our own State one of the first difficulties that, in the vast majority of cases confronts us, is the want of sufficient money to give our patients such care and treatment as he needs, for we will find that single treatment means travelling, in some cases, with an attendant; and even at home the most assiduous watching by the physician and nurses. Few of our people are able to bear this expense, even if the patient has everything else in his favor for private treatment. It is plain that dangerous homicidal or suicidal persons need sequestration, that noisy and destructive ones—those disposed to burn, to steal or commit depredations of any kind, must be restrained. Acute mania, delirious melancholia and even melancholia of less acute form, does better when sent to an asylum; indeed, a cure is hardly to be expected outside of one. General paralytics, because of their tendency to steal and to squander their means, require sequestration.

Persons who have hallucinations of hearing are always dangerous. "The mystics, besides their practices of fasting, asceticism and self-inflicted violence, even to the extent of more or less serious mutilations, often attempt the lives of others in obedience to the sense of duty that inspires them. Those persons who believe they have received from heaven missions to destroy great or prominent persons, others with the view of pleasing God by sacrificing children in imitation of Abraham, still others who have delusions that they are persecuted, those suffering with subacute mania, with acute and subacute alcoholic insanity, those with delusions of grandeur, paranoiacs (primary delusional insanity), all these should be confined.

There are many patients whom we cannot pronounce dangerous, but who seem unable to exercise self-control enough to recover outside of an asylum. The following case will fully illustrate this class of cases: A short time ago a gentleman visited me with his medical adviser with a view to putting himself in the hospital. He was a shrewd business man, one who had accumu-

lated considerable property by thrift and enterprise. He had formerly been in an asylum, where he remained a short time.

The only thing wrong with him was his extreme restlessness and a desire to drink and spend money foolishly. It was not very plain the gentleman was insane. We finally agreed that he would put himself under my treatment and remain in Morganton, and that I would furnish him a nurse. The patient, after various efforts to exercise self-control, finally told his physician that it was impossible for him to recover unless put under restraint, as he realized that he was insane and needed hospital treatment. And the patient was right.

There is still another class, it seems to me, that requires sequestration, and that is composed of young women whose minds are weak, either from disease or congenital defect, and who shows no disposition to injure themselves or others. They are a menace to society by becoming the victims of the brutal lusts of vicious men and breeding illegitimate defectives, to say nothing of the mortification and disgrace to their families and friends.

Dr. E. Regis, in his work, "Practical Manual of Mental Medicine," says: "In every case of acute derangement, especially an attack of mania or melancholia, that is of a curable form, isolation should be practiced as early as possible, because it has been irrefutably demonstrated by experience and proven that insanity has not only ten times less chance of recovery at home than in a special establishment, but also that an attack of insanity not specially treated, but left to itself in an asylum, recovers more quickly than would the same case treated and watched outside of an institution."

After thinking over the matter and reading on this special subject, I find only a very few acute cases that can properly or safely receive "single treatment."

Acute primary dementia is a form of insanity which resembles nearly the popular idea of idiocy, and is not preceded by either mania or melancholia, the latter being called secondary or terminal dementia. Acute primary dementia in the young may be successfully and safely left at home, as nothing is required except the mere attending to the bodily functions. As already indicated, some forms of puerperal mania may be treated at home, and so mania transitoria and delirium tremens and a form of mania following epilepsy.

In addition to forms of insanity mentioned which are acute, there are some chronic cases who may remain at home. All of you know many such who are simply called eccentric or peculiar. They often do not require any medical attention. The family or friends being acquainted with their peculiarities, soon learn to manage them. After all, it is simply impossible to indicate further what forms may be treated without isolation. It must be left to the individual judgment of the physician in each case. In acute cases,

where there is no apparent danger in trying one at home for a while, a sufficient trial may be given before deciding to send to a hospital.

Treatment.—"In no other disease," says Maudsley, "are the difficulties of treatment so great as they are in mental disease, the intrinsic difficulties appertaining to the nature of obscure disease are increased and multiplied by the social prejudices concerning it; by the frequent concealments and misrepresentations on the part of friends who often may be reckoned on to mislead, rather than enlighten, the physician; by the necessity of removing the patient—probably against his will—from the care of his relations to other care more suited to his malady; by the unsatisfactory character and position of the institutions for the reception of insane persons; and, in some measure, also, by the necessary stringency of lunacy legislation. In the face of such difficulties one may sympathize with Casaubon when he says: "Let others admire witches and magicians as much as they will, who, by their art, can bring their lost precious things and jewels; I honor and admire a good physician much more who can, as God's instrument, by his knowledge of nature, bring a man to his right wits again when he has lost them."

The treatment of insanity naturally divides itself into general, which includes moral, hygienic, medicinal, etc., though in practice they are intimately connected.

Rest in bed as treatment has not until of recent years been so universally used. Of course, in cases weakened by disease, it was a necessity. I refer only to those cases physically able to be up. This treatment, as is sometimes the case, was first brought forcibly to my attention by what seemed to have been an accident. Just ten years ago a lady was committed to the State Hospital suffering with sub-acute mania, with an element of religious and sexual excitement mixed with the usual symptoms of the disease. She was restless and nervous, much broken in health and with poor appetite. She, in the course of time, began to expose her person when a man was in her presence. One day when she was making an exhibition of herself in this manner the nurse was instructed to put the patient in her room, meaning only until I had left the ward. I was called off that day and was gone for several weeks. The patient, in the meantime, having been kept in bed, I was surprised to find her on my return very much improved, better, in fact, than it was thought she would ever be. Since then I have found it useful in other forms, principally melancholia. This treatment has been long in vogue among neurologists, and I believe largely practiced in homeopathic hospitals. It is nearly always worthy of trial in these forms of insanity.

Occupation, Exercise and Amusement.—The first aphorism dinned into my ears as a rather lazy boy was, "An idle brain is the devil's work-shop." This is preëminently true with the insane. No effort ought to be spared to encourage them to work, and, far better, to have some useful employment, if not useful, then employment of some kind. I have known patients to be

improved by giving them rags to tear, indeed, almost anything on which to expend their surplus energies except destructiveness. For the men there is nothing better than the ordinary labor on a farm. They may be usefully employed in the shops, at the barn, and, in fact, at any work they may fancy. I have established a special shop for them, where brooms, baskets, mattresses, etc., can be made. For the women, the usual household work, sewing, knitting, spinning, together with work in the laundry and kitchen, is used. I believe that perhaps their work might be enlarged by employment in the garden, the poultry yard and such other out-door work as they are accustomed to do at home.

Patients are induced to work by granting them certain privileges and appealing to their reason, but principally with us it is done by giving those who work tobacco. Failing to get patients to occupy themselves, they should take out-door exercise—at all events, to be in the open air. There are a class of persons, such as professional men unaccustomed to manual labor, who will not work; for them we try to find pleasant amusements, billiards, ten-pins and amateur theatricals. Dancing with us is more universally enjoyed than any other amusement. The object in all this is to get the patient's attention away from his morbid fancies and to divert his mind into healthy channels. Various other methods are used, but the object and results are the same, whether it be by schools, by lectures, by stereopticon exhibitions, by corn-shuckings or what-not.

Seclusion and Mechanical Restraint.—It is sometimes necessary to seclude a refractory patient. All agree to this. Mechanical restraint is sometimes used to prevent injury to others, but of late years it is not used in many institutions except for surgical purposes and to prevent self-mutilation or suicide. The form of mechanical restraint usually employed is the camisole or strait-jacket. Tuke, in his *Dictionary of Psychological Medicine*, lays stress on what he calls "Appeals to reason." "It has been laid down," says he, "over and over again, that it is no use to argue an insane man out of his delusions." "As a general rule," he goes on to say, "this is no doubt true, but it may be too broadly stated and too invariably acted on." He holds, and he is right, that, while this rule may be applicable at one stage and be no longer useful at another, it is well not to agree with one in his delusion, and yet not too strenuously to deny it. It is a matter of judgment when it is wise to show the patient that he is laboring under a delusion. I believe it is a good rule never to directly admit to the patient that his delusions are true.

The hygienic treatment of insanity includes the usual sanitary regulations in regard to clothing, habitation, food, sleep, etc. There is nothing special in this. The patients should have a sufficient quantity of good, plain, well-prepared food, his clothing should be ample and free, his quarters well ventilated and clean. Untidy patients should be bathed in warm water as

often as they become soiled. The best bed for them is a cotton pad, under which should be a rubber or oiled sheet to protect the mattress. In a certain class of lunatics there is great danger of bed-sores. It is not always possible to prevent them, but care should be taken to bathe the parts likely to break down with alcohol or alum-water. Equal parts of castor-oil and balsam of copaiba is one of the best remedies with which to treat the sore.

Hypnotism has been tried in the treatment of insanity, but so far with negative results. Suggestions during the waking state I have occasionally found useful. For a long time I used it only to prevent one patient making an assault on another; but of late I have used it to prevent other insane acts with some good results.

Medicinal Treatment.—"The special medicinal treatment of mental disease," says Maudsley, "lies within small compass. No physic in the world can touch an insane vanity or suspicion, or pluck from the memory a rooted sorrow, or raze out the written troubles of the brain. If that is to be done, it must be done by the gradual operation of sound moral hygiene and the healing effect of time."

It is plain to every physician that when the system is broken down it should be built up, whatever the disease. In the drug treatment of insanity a large part of it is tonic, and for this I know nothing better than nux vomica and iron. Alcoholic stimulants should be used in the exhaustion of acute, or even chronic, mania and melancholia, and, as in general practice, in the old and feeble. Opium should be prescribed with great caution. It is of advantage in melancholia of the climacteric and sometimes in puerperal mania. Morphine combined with Indian hemp is a valuable hypnotic when other means have failed. Paraldehyde is one of the best hypnotics in the sleeplessness of acute mental disease, and, moreover, it is comparatively a safe remedy. Indian hemp is useful in many cases combined with chloral and bromide of potash. The bromides are beneficial at times with patients who can partially control themselves or are on the eve of an attack. Chloral I consider a rather dangerous agent in the treatment of insanity, and it is dangerous to life and more dangerous to reason. I am yet to see a lunatic recover while taking chloral, even in moderate doses. It has well been called "crystallized hell."

Dr. Babcock, Superintendent of the South Carolina Asylum, told me that the first year or two he served as assistant physician at the McLean Asylum, near Boston, chloral was largely used in that Institution, and it was a notoriously noisy place. Afterwards its use was discontinued, with an almost immediate cessation of noise and other disturbances.

Some months ago I was visiting an asylum, when a gentleman living near the Institution called to see the Superintendent on business. In the course of the conversation he said: "Doctor, what have you done to quiet your

patients? I have heard no noise for several months, and before that time I heard noises night and day."

The Doctor did not give him any definite reply, but my curiosity was excited, and I began to interrogate. I found that, whereas chloral had been largely used for the length of time the visitor had noticed the cessation of noise, the use of the drug had been discontinued.

Hyoscyamus is useful very often in quieting restless patients, and used for this purpose, it is valuable. The active principle, hyoscyne, is one of the best hypnotics. In sleeplessness of old and feeble persons, or, indeed, in any feeble patient, nothing is better than a glass of hot milk, or milk and mush at bed time.

In masturbation, belladonna and cod-liver oil are sometimes effective. Cathartics are especially useful in melancholia, where there is apt to be constipation, and also in chronic mania. I have seen a threatened attack of mania cut short by a brisk saline cathartic. I have had only a limited experience with electricity in the treatment of insanity. Those who have tried it do not speak highly of it, though I have no doubt it may be useful in some cases.

Blood-letting has fallen into disuse; it may be that it is too little used, and the same may be said of revulsion. A seton in the back of the neck is the best form of revulsion.

Massage and the Swedish movement cure are useful in certain forms of dementia or melancholia, where we find it impossible to make the patient take exercise. A mattock, or pick, or a wheel-barrow are better than the most accomplished masseur or the most expensive Swedish movement cure apparatus.

It has long been known that a sharp attack of some inter-current bodily disease has sometimes a markedly beneficial effect in chronic cases of insanity. Some recent writer has suggested the possible advantage of the subcutaneous injection of some toxine in the treatment of old cases. The psychiatrist, you will observe, does not wish to be left behind in the mad rush for toxine cures.

Esquirol calls the insane asylum the great therapeutic agent in insanity. "The treatment of insanity," says a recent writer, "cannot stop with the discovery of the physical lesion, which is the disease, in fact, and the proper application of remedial agents to it, but must have in mind, and must attempt to correct, the disorder in conduct that is a large part of its symptomatology. In by far the larger number of cases this conduct disturbance leads to injury, in greater or less degree, of the patient, and necessitates, for this reason, the intervention of other control than the volition of the individual affected. Experience has demonstrated that in private families this control can seldom be advantageously provided. We need not stop here to discuss the reasons for this. Whatever theories may be advanced, practice

will determine that individual private treatment for the general classes of the insane, acute or chronic, is neither practicable nor advantageous. The feature of the disease that makes this true is the lesion of judgment and the defect in reasoning power, which prevents the individual from being able to judge correctly as to his own best interests. The restraint of conduct is, therefore, in most instances, a forcible one, and in antagonism to the wishes of the patient. Its enforcement must, more or less, irritate him and put him in antagonism to the agency enforcing the control. Where this is individual entirely, as it must be in a private home, it is more decidedly irritating than in an institution where architectural and institution arrangement largely supplant the individual control of the home. Complete change in environment such as institutional treatment affords, is often a wonderful regulator of conduct. The surprise or shock from the great contrast with home life takes the mental activity, the main-spring of action, out of the morbid channel in which it has run at home, starts up new lines and fills up the old ruts."

The best work the hospitals for the insane do is not the number of patients sent away cured. When the curative stage is passed, our best skill is called into requisition. We must then begin the hardest of all our work to call up in our patient the remnant of self-control that may be left, and to make them as happy and useful as is possible. The best hospitals are those which have the most quiet and orderly patients—which means the happiest and most useful.

Prognosis.—"The prognosis as regards life depends more upon the existence of other bodily diseases than on the condition of the brain affection. Certain forms of insanity are characterized by immediate inflammation of the cortex. Of these the most dangerous is dementia paralytica (general paresis), which proves fatal in one to three years. An unfavorable prognosis attaches to the conditions of excitement which are due to severe congestion of the brain. Persistent motor restlessness and insomnia increase the danger of sudden collapse, and rapid œdema of the brain may develop under such circumstances. The more violent the cause and the more recent the disease, the greater is the danger to life; as a matter of course old and feeble persons succumb most readily." (Kirebhoff.) "Prognosis as regards recovery from insanity requires much greater psychiatric knowledge."

In considering the latter prognosis, i. e., prognosis as to recovery from insanity, the curability of insanity will be included, in a general way, later on.

Acute mania and melancholia are favorable in persons under forty years of age without a strong heredity. Persons with fixed delusions, or hallucinations of hearing or smell, or with periodical attacks with long, free intervals, are unfavorable to complete recovery. A case slow in developing the disease is unfavorable, so are quick or sudden apparent recoveries. Improvement in physical health coincident with mental improvement is favorable, while, on the other hand, improvement in bodily condition without any correspond-

ing mental change is one of the worst indications. Post-febrile insanity, unless due to anæmia, is unfavorable, so also syphilitic and epileptic insanity. Insensibility to pain, to heat or cold, staring into the bright sunlight, absence of the feeling of satiety, the ingestion of nauseous articles, especially of excrement, are found almost invariably to mark unfavorable cases. When the individual begins to admit that he "has been wrong," as he usually expresses it, a recovery may confidently be expected; the same may be said of those in whom there is a return of the natural affections and tastes. This covers nearly all "the rule of thumb" prognoses common in asylums and will suffice for this paper.

Dr. John Thurman traced the history of 244 cases treated at the York Retreat, England, and, in generalizing from these data formulated the following rule: "In round numbers, of ten persons attacked by insanity, five recover and five die, sooner or later, during the attack. Of the five who recover, not more than two remain well during the rest of their lives; the other three sustain subsequent attacks, during which at least two of them die." The York Retreat was founded early in the eighteenth century by the Society of Friends. Being patronized almost exclusively by this sect, the subsequent history of each case was known. This rule has become classic. The recent results of treatment in the York Institution show that the rule formulated a century ago is practically unchanged now.

The curability of insanity, as shown by hospital reports, will now be considered.

The late Dr. Pliny Earle read a paper before the American Medical Psychological Association, in 1885, on the curability of insanity, which seemed to show that fewer cases recover now than did forty or fifty years ago, and to prove this, took the statistics from twenty American asylums during three periods of five years each. During the first quinquenniad there was 46.08 p. c., during the second the recoveries were 34.26 p. c., and during the third the recoveries were 29.91 p. c. I took the results of the same institutions for a fourth period from 1885 to 1890, which shows the recoveries for this period to have been 27.48 p. c.

These statistics show a steady decline from the first to the second period of 11.82 p. c., from the second to the third of 4.35 p. c., from the third to the fourth of 2.43 p. c. While the decline in recoveries is steady, the decline grows less and less. We will hope that it has at last struck rock-bottom, and that hereafter the recoveries in asylums will not fall below 27 p. c. And the next statistics I will present to you seem to show this.

Dr. Earle took the results of 58 institutions for 1884; these show 27.88 p. c. of recoveries. The same institutions for 1894 show 27.51 p. c. It is proper to state that the percentage of recoveries is taken, not on the whole number treated, but on admission, which is the only way to arrive at the correct results.

The 58 hospitals represent the whole United States. The result by sections, as shown by the Doctor, was as follows: In the New England States the proportion of recoveries was 24.92 p. c., the Middle States 21.42 p. c., the Southern States 34.27 p. c. and the Western States 29.81 p. c. The largest number of recoveries was in the Southern States and the smallest number in the Middle States. For the year 1894 the result by sections shows 19.78 p. c. of recoveries in the Eastern States, 26.89 p. c. in the Middle States, 36.08 p. c. in the Southern States, and 26.06 in the Western States—the Southern States still showing the largest number of recoveries, and in this instance the Eastern States the smallest.

When I come to analyze these statistics, I am at a loss how to proceed. It is claimed by many, and I see no reason to doubt their statements, that now psychiatrists are more particular than formerly, and many patients, who, forty years ago, were discharged as recovered, are now discharged as improved, or kept in the hospitals as chronic and incurable cases. And yet this accounts for only part of the facts. The old men claim there has been a change in the type of the disease, that there is more melancholy, more general paresis and other forms of incurable insanity caused by fast living, and the sharp contests for existence. Whatever may be the reason, you have the results before you, as shown by the hospital statistics.

Death-rate.—Unfortunately, I can give you the death-rate for one year only, and that is in the 58 asylums whose percentage of recoveries I have just stated. The average death-rate on the whole number treated in these institutions for the last year was 7.2 p. c. Taken by sections, as we did the percentage of recoveries, it was 8.1 p. c. in the Eastern States, 6.7 p. c. in the Middle States, 7.4 p. c. in the Southern States and 6.8 p. c. in the Western States. The smallest death-rate was in the Middle States and the largest in the Eastern States.

I am well aware that it is not fair to limit our inquiries to one year, that there are many influences, both favorable and unfavorable, which may, and do, modify the results if only one year is taken, but these influences are probably balanced by taking a large number of institutions. We may therefore consider that the average annual recoveries of the insane in American institutions is 27 p. c., and that the death-rate is 7.2 p. c.

It may not be uninteresting to you to know the results of treatment in the State Hospital at Morganton for the twelve years of its existence. At the end of the last fiscal year, November 30, 1894, 1,642 cases of insanity had been admitted; of this number, 642, or 39.1 p. c., had been discharged as recovered, and 213 died, or an average annual death-rate of 4.6 p. c. When writing this paper I did not have the data to prepare the statistics of our two other State institutions, nor the time to procure them.

In conclusion, let me thank you for the courtesy of your attention to a paper treating in so cursory a manner such a broad subject. My object has

been to direct your attention again to the whole subject, that the special aspects may be before you for further study, should it suit you.

Apart from its interest to you as physicians, it is of vast importance to each one as a citizen of the State. The State expends each year a third of its yearly general revenue for the support of its institutions for this class, and it is impossible to estimate how much is spent by individuals and families in a way not to be collated in statistical estimates; and finally, in the broad field of philanthropy into which the profession of medicine puts each one of us, it is our duty to study out the wisest course for the care of this class of dependents.

If this effort of mine shall lead any to a clearer understanding of a single feature of the subject, or ameliorate the condition of one defective, I shall be repaid for my labor, and will plead this as an excuse for so long trespassing on your valuable time.

DISCUSSION.

Dr. Charles Duffy thanked Dr. Murphy for his paper, and, as a member of the State Board of Charities, he could see a very decided need that the paper was intended to cover. He said that there are about 2,000 or 2,200 insane people in the State and that the institutions now could not care for more than 1,200, and that the others were without care except such as they received from the various counties in such places as jails and county homes. And the suggestion of Dr. Murphy (the farming plan, or boarding plan), if carried out, might go a long way in improving this population. But it seemed to him that it could hardly be carried out unless a house could be arranged in the neighborhood of the hospitals now in operation. It would be almost useless for each county to try it. A practitioner at first can hardly tell whether the case will be incurable or not. But he may find that the case cannot be cured by that treatment, and then the first thing to do is to change the locality, the surroundings and air immediately. Now, if boarding places were established near these various hospitals, so that the hospital officers would have oversight and superintendence of the cases, many of these would be cared for—living there for a month or two. According to this plan we should hope that from \$5.00 to \$8.00 a month would be sufficient. As it is, the care in these hospitals amounts to about \$12 or \$15 a month.

Apart from the matter of cost, it is a great measure. Few people know about this; there are hundreds of these people all over the State in jails and felon's cells. They are dangerous and have to be confined and there is no other way. He said that in this day of civilization it ought to be improved, and he would be much gratified if the improvement should start with the reading of this paper.

Dr. Long thought that so much information was not needed, but that action was wanted. As long as there are many men of many minds they

would look at it from so many standpoints. There is a constant drain upon the purse of North Carolina to sustain these hospitals, a third of the revenue of the Commonwealth being used in this direction, and still sometimes we are in danger of not sustaining those already admitted. It seemed to him that if they could be colonized around these institutions and classified and be under the officers of these institutions, it would be much better than the present condition. He said that the Society had it in its power to control the public sentiment and could lift questions of this kind above partizan politics, if it would only take the initiative. He wished to add his moral influence, so far as it goes, to the suggestions made by Dr. Murphy.

Dr. Lewis said that the mention of chloral had brought to his memory a case that occurred in a hospital of the influence of chloral. He had remarked at the time that any one who took chloral for any length of time would wind up in an insane asylum, and what Dr. Murphy stated, that improvement was instantaneous as soon as the drug was discontinued in the Institution, verifies his belief. Inasmuch as all so frequently use chloral in their practice, they should bear in mind that chloral is a dangerous thing to use. He supposed that all must feel it a crying shame that so many of the insane were not treated. It seemed to him that the colonization scheme was the best plan, because it would be necessary for these people to have, not only expert care in regard to medical attention, but also in regard to nursing, and that therefore it was important for these institutions to open their doors for the purpose of training, what might be called, subsidiary attendants. If any county should be sufficiently enterprising to send a person for the purpose to one of the institutions to be taught to take care of its own insane, it would be well. He hoped that some movement would be made towards making advances in that line.

HAIRY CONCRETION IN THE STOMACH.—Blaxland (*Intercolonial Quarterly Journal of Medicine and Surgery*) says: I removed from the stomach, in a girl, aged nineteen, a hairy concretion, kidney-shaped, its dimensions being approximately five and one-fourth inches by two inches, its weight being within a few grains of five ounces avoirdupois. The patient had been in the habit, for six years, of biting off and swallowing hair. During recovery from operation the only untoward symptom was an elevation of temperature to 104° F. The patient, while asleep, made several attempts to draw her hair to her mouth.

REPORT OF RECOVERY OF A CASE OF PROGRESSIVE SPASTIC ATAXIA ASSOCIATED WITH MULTIPLE NEURITIS.

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Clinical cases of the combined scleroses are always interesting, for, presenting a picture of commingled symptoms, as they always do, renders their study very attractive.

This case is reported more especially because of its favorable termination and on account of the treatment employed, than from any peculiarities of symptoms that it exhibited.

The prognosis in such cases is always grave, most of them continuing for many years and some terminating fatally in a very short time. From its multiplicity of symptoms it is also a difficult disease to diagnose, and we confidently hope that, in the near future, scientific investigation will separate the varied and multitudinous symptoms of this malady into several different diseases, and that the diagnosis as well as the prognosis may be influenced thereby.

I have purposely reported this case as one of ataxia paraplegia associated with multiple neuritis, because, while the symptoms of a disseminated neuritis may be present in many cases of the combined scleroses, still it is not usual to find these symptoms so markedly prominent as they were in this case. It is also true that one of the most frequent causes of this disease, as is the case in multiple neuritis, is syphilis, but, in this case, since the cure was effected without recourse to specific treatment, it is believed that this was not a factor in its causation.

It is yet unknown by neurologists whether this disease is a primary or secondary one. In my judgment, this particular case illustrates the most generally accepted theory that it is a secondary affection, for from an elicitation of its history there was evidently in the beginning a primary myelitis.

History of the Case.—Miss Jessie D., age 16, was in robust health up to November 1893, when she received a severe fall at a skating rink, receiving the force of the blow at the lowermost part of the spinal column. She soon recovered from this accident, to all appearances, feeling at times only a

*Read before the Richmond Academy of Medicine and Surgery July 9. 1895.

slight pain along the lower dorsal part of the spine. In about six weeks or two months there was noticeable some impairment of sensation, slight rectal and vesical symptoms and a muscular weakness in the lower extremities. There was also present a more or less constant cephalalgia, being more intense at the menstrual periods.

This condition continued for about three months subsequent to the fall, at which time she was compelled to resort to an invalid's chair, though she did have subsequently one interval of about three weeks' improvement. For the last year, however, she has been incapacitated from taking exercise on account of muscular weakness in her legs. During this period, also, she has exhibited symptoms of multiple neuritis, suffering much from tenderness of the muscles and nerves in both arms and legs and some œdema of the feet, with temporary inflammation of the joints.

She was treated during this time for various diseases, such as neuralgia, rheumatism, hysteria, etc., but without avail, the tendency of the disease appearing to be progressive.

Symptoms upon entering the Hospital were: On March 7th, 1895, she was referred to me and entered the Virginia Hospital. Her appearance at this time indicated a fair state of health; she was in cheerful spirits and possessed a good appetite. Her family history was good, her mother being alive, but her father having died some years previously from pneumonia.

Upon examination, no vertebral lesion was discoverable, and while it was perfectly evident that she was suffering from multiple neuritis, still there were no deformities present. She could stand a few seconds, but the motor weakness in her legs was very manifest, the paralysis being a flaccid one without much muscular atrophy. There was some tenderness on pressure along the spinal column, and she complained of a dull sacral pain and of much inconvenience, both from her bladder and rectum, but more especially the latter. She had good use of her upper extremities, except when suffering acutely from the co-existing neuritis. She could not sit up alone steadily, and if her eyes were closed, she at once began to sway, neither could she touch a given spot on her face with her index-finger, with closed eyes, with out considerable difficulty.

The tendon reflex of the knee was very much exaggerated and the ankle clonus was readily obtainable. There was also some diminution of pupillary reflex to light.

The tendency in this case was apparently progressive, for, during the seventeen months in which this patient had suffered, there had been a very gradual increase in the severity of her symptoms.

Treatment.—Being convinced that the existing symptoms were induced by the fall and a consequent over-strain and resulting myelitis, I determined to direct the treatment to that end.

Consequently, the patient was ordered absolute rest and forced feeding as initiatory to subsequent methods of treatment. No medicines of any kind were ever given during the process of treatment, except occasional temporary expedients. The neuritis was treated by swathing the arms and legs in cotton batting enforced with a roller bandage. Later, gentle massage, hot baths and the use of the faradic current of high tension were employed. After three weeks of this treatment symptoms of improvement as regards the neuritis were discernible, but there was little improvement noticeable in the other symptoms.

Spinal galvanization was then instituted, together with Swedish movements, and was continued till the end of the treatment. A weak labile current of from 10 to 15 milliamperes was used every alternate day, lasting from 8 to 15 minutes, the weaker the current and the longer the seance, the more rapid seemed the improvement. At the end of the second month of treatment there was perceptible improvement, and during the two succeeding weeks the patient was able to stand erect for a few minutes. From this time on she made a rapid recovery, and on June 7th, just three months after being admitted, she was discharged from the Hospital, being at that time able to walk several blocks. Since then she has continued to improve, and, while she still shows some evidences of Romberg's symptom, yet she does not fall, even if she attempts to walk with her eyes closed.

Being now deprived of local treatment because of her departure from the city, a prescription of medium doses of potassium iodide and arsenic have been ordered, and she gives fair promise of an ultimate radical recovery.

Selected Papers.

REMARKS UPON TREPHINING THE CRANIUM.

BY JOHN ASHHURST JR., M.D., Philadelphia, Pa.

I find that I have performed the operation of trephining the skull forty-one times, not including those cases in which I have merely opened the frontal tissues, nor those in which I have removed bone-fragments without using the trephine. Of these forty-one cases, twenty ended in recovery and twenty-one in death, showing a mortality of a little more than 50 p. c. In many instances I have refrained from interference when other surgeons would have operated, so that my cases have been of an unfavorable type, and the mor-

tality has no doubt been higher than if I had operated more indiscriminately.

The details of these cases are as follows: twenty-four were primary operations for compound fracture, with eleven recoveries and thirteen deaths; two were operations during the intermediate period, both successful, and three were secondary operations, with one recovery and two deaths, both in cases of abscess.

As far as it goes, this analysis confirms what has so often been pointed out, that there is not as much urgency in operating upon compound fractures of the skull as there is in the case of compound fractures in the extremities. In the latter, the sooner the operation is done, if the patient is able to bear it, the better. This has long been the rule in military surgery when amputation is required, and some years ago I collected extensive statistics from civil practice which showed that the same rule of procedure applied there. But this is not so in compound fracture of the skull, and the proportion of recoveries is larger in delayed cases than when the operation is done immediately, as is well shown by Bluhm's statistics. At the same time, in a bad case, where an operation is evidently necessary, I do not advise delay; but early trephining is not so imperative as in early amputation for compound fractures of the long bones. Trephining for suppuration occurring as the result of injury is usually fatal.

In three cases I have operated for syphilitic disease, with two deaths and one recovery. In the latter case, besides evidence of syphilitic brain-disease, there were painful nodes in the skull, and I operated by dividing the nodes with a Hey's saw, and then made a single opening with the trephine, so as to relieve the intracranial tension. The patient was much benefited for a time, and left the hospital relieved, though not cured. The fatal cases were in patients suffering from syphilis of long standing, with necrosis and intracranial suppuration.

I have been induced to trephine in three cases of epilepsy, all the patients recovering from the operation. One, an epileptic with suicidal tendencies, came under my care at the University Hospital in October, 1886. After the operation the patient was much benefited as long as he remained under observation. In the other two there was no evident improvement, though both did as well, as regarded the operation. In a case of melancholia, following an old fracture of the skull, trephining gave no relief, and in two cases in which I have operated for convulsions, etc., following old injury, one terminated fatally, while no permanent gain resulted in the other.

I have operated unsuccessfully upon three patients for the cerebral complications resulting from disease of the middle ear. Statistics show that many lives have been saved by trephining under these circumstances, but in my own cases, though abscesses have been reached and evacuated, the patients have died.

Although I have thus operated in twenty-one fatal cases by trephining, in only one case did the operation seem to have been responsible for the patient's death. This case was that of a child with a depressed fracture over the lateral sinus. On removing the depressed bone profuse hemorrhage occurred, and the patient died in consequence. I had not then learned the futility of attempting to check bleeding from the brain sinuses, except by prompt plugging. I have had four cases since in which the longitudinal sinus was opened, and in two of these the patients recovered. In a third, bleeding was readily controlled by pressure, but ultimately death followed, while in the fourth a clot had formed in the sinus, giving time to apply a lateral suture to the divided vessel. This case was an interesting one—it was that of a boy who had been injured by a nitro-glycerin explosion, a piece of metal being found lodged in the longitudinal sinus, causing a clot as mentioned.

As regards the locality of the injury, I find that of fractures involving the frontal bone, omitting those simply involving the frontal sinuses, there were five, with four recoveries and one death. These figures do not confirm the general impression that there is a special danger in fractures of the frontal bone. Indeed, much more depends upon the amount of injury to the brain than upon the place of fracture. In one case the indication for trephining was bleeding from the middle meningeal artery, and in that case the patient recovered. He was an athlete who, while playing foot-ball, came into violent collision with another player, sustaining a fissured fracture of the parietal bone. He was stunned at the time, but soon recovered consciousness; in the course of half an hour, however, convulsions came on, followed by coma. He was brought to the hospital and I applied the trephine, evacuating a considerable amount of clot; the patient made an uninterrupted recovery.

In terminating the discussion which followed this communication, Dr. Ashhurst said:

In reply to the last question, I wished to be understood as saying that I would not push the argument from statistics, and that in cases in which the operation was clearly indicated I would operate at once; but that in cases where there was a doubt in the mind of the surgeon as to whether he should operate or not, a short delay would not be as dangerous as it would be in the case of amputation. In cases of impacted fracture my experience has been, as a rule, not to interfere in the absence of symptoms. In cases where there is no opening into the cranial cavity and where there are no cerebral symptoms, I think that the surgeon is justified in waiting for more definite indications. At the same time I find myself more inclined to operate than I was twenty years ago, on account of the greater safety afforded by modern methods of wound-treatment.

With regard to Dr. Harte's question, I do not recall any case of discharge of brain matter from the ear; but loss of brain substance not infrequently occurs at the seat of fracture. With regard to the watery discharge from

the ear, I have often observed that as long as the discharge continues the patient may do well, but that if it suddenly stops, the patient will probably become comatose and die in a few hours, the arrest of this flow seeming to increase the pressure upon the brain. Old residents of the Pennsylvania Hospital will remember a case under the care of the late Professor Joseph Pancoast, in which there had been such a free discharge from the ear that it had been collected in a cup to be measured. The cup was found empty in the morning, and upon investigation it was learned that the night-watchman had mistaken it for medicine and administered it to the patient, a teaspoonful every three hours during the night.

With regard to fractures at the base of the skull, I have not seen any case in which I thought trephining indicated. I think that an attempt should be made to prevent infection in these cases by cleansing the ears, and, as far as possible, the nasal and buccal cavities. After securing cleanliness, I rely upon the use of calomel and Dover's powder, with hygienic treatment, rest in bed, cold to the head, laxative enemata, etc., and by these means recovery will be obtained in a considerable number of cases.—*International Medical Magazine*.

A CASE OF CONGENITAL EXFOLIATION OF THE SKIN.—Sangster (*British Journal of Dermatology*, February, 1895) reported the case of a man who was affected with a skin-disease which had first appeared when he was three weeks old. Although his malady was always present, there were three or four attacks each year which reached a high degree of intensity. On examination the skin had everywhere a pigmented look. Extensive tracts of the body, perhaps involving the greater part of the extensor aspect of the arm or the outer side of the thigh, were covered by a harsh, cracked epidermis, much of it thickened and divided into small quadrate areas. Where not so thickened the skin felt thin and paper-like. On picking up the partly detached margin of epidermis a sheet three or four inches square could be peeled off without pain. The surface beneath was grayish-white and smooth, and to the touch slightly sticky. Within a few hours the denuded surface became a red color and there was a smarting sensation, but nothing like a crust formed and the surface soon paled and became as it was before. There were other parts of the body where spontaneous exfoliation was taking place. The surface presented a ragged appearance, the flakes of epidermis looking as though stuck on. The recently denuded skin looked red, but was not thickened. The palms and soles were the only regions not exfoliating, and here the epidermis was thickened and bathed in sweat. The author believes the condition is a malformation of the skin, and congenital.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

Dr. Payne's Murderer Acquitted.

We noted the fact in our last issue that the jury had returned a verdict of "Not Guilty" in the case of the State against Shemwell for the murder of Dr. R. L. Payne, Sr., a few months since. We were not able to keep up with all the testimony of the witnesses, as brought out at the trial, but it was substantially the same as was published in some of the State papers at the time of the tragedy, and how the "honorable jury," bound by solemn oath to render their verdict in accordance with the law and the evidence, could render such a verdict, is more than we can understand. It impresses upon us, more

forcibly than ever, our conviction that the trial by jury, as we have it to-day, is an absolute farce, and more often fails than succeeds in doing justice to all. Knowing the record of Davidson county in such cases, it would not have surprised the people had the jury returned a verdict of murder in the second degree, or even manslaughter, either of which would have saved the prisoner's neck; but to have him turned scot-free is not merely a surprise to the people, but it seems to be a clear warning to them that if they expect protection, they must look elsewhere than in the courts of Davidson county. It is just such cases as this that make men take the law into their own hands and

meet out speedy punishment to those who are a menace to the community. How can the people of Davidson feel safe with such a character turned loose upon them? Do those twelve men hold the lives of the best of their citizens as so valueless that one may destroy them at will, and then not

only escape punishment, but be given perfect freedom, that when he again sees fit he may add another victim to his list? Either purify the jury-box or abandon it forever. Otherwise we must expect to see the outraged people resorting to lynch law to rid themselves of desperate and lawless men.

Abstracts.

THE ASEPTIC TREATMENT OF SUPPURATION.—Zeidler, of St. Petersburg (*Centralb. f. Chir.*, No. 14, 1895). The author says that late experimentation seems to be exposed to all wound disinfection. Reichel concludes, after experimentation on animals, that even extensive phlegmonous processes can be controlled by sufficiently free incision, and the excision of pus-infiltrated active tissue, and subsequent tamponade of the wound. Disinfection of the wound is therefore absolutely unnecessary. For the past two years Reichel has simply wiped out the cavity with sterile gauze, and packed it loosely with iodoform gauze, and he is well satisfied with the results. This method is not new, as it has been practiced many times before the experimentation was conducted. The advocates of antiseptics in operative wounds generally consider antiseptics essential in the cases of infected wounds. The author gives the details of his experimental work since 1888, and now for the past few years the fol-

lowing procedure has been adopted as a result of this experimentation.

In infected wounds the field of operation is prepared as usual. Before and after the operative manipulation the wound is wiped out with sterile gauze. As a rule, no irrigation is employed. If, however, it is necessary to irrigate, a 0.6 p. c. sterile salt solution is employed, the wound is carefully tamponaded with sterilized gauze, and over this there is a layer of gauze, then wood-wool, etc. When the dressing is changed the skin around the wound is cleared with ether or benzoin, and the granulating wound dressed with sterile gauze without irrigation. In most cases the dry dressing is all that is necessary, but sometimes a moist dressing is more useful. When this is necessary a saline solution is employed. He believes that moisture is the most important point, and disagrees with Reichel in the necessity of employing disinfectants.

Suppurating wounds with an abundant supply of blood-vessels are in-

fects sometimes, especially where the suppuration is profuse, and a dressing with alum acetate is employed. The efficacy of this dressing is, however, not due to any antiseptic effect, but to its astringent character. He does not consider that iodoform gauze is of any value in suppurating and septic wounds. He has never seen a decomposition of the secretions absorbed by the dressings, although the lower layer of the dressing has not been altered for about eight days. It is essential that the dressing should be hygroscopic, and that there should be free evaporation from its surface.

He has succeeded in cultivating pus bacteria from these wounds immediately after disinfection, and he does not believe that disinfection of these wounds is ever successful, while his results with the aseptic treatment have been very satisfactory, in fact, decidedly better than with vigorous antisepsis. Using this dressing, the local process in healing is much better, the secretion is diminished, the development of granulations proceeds normally, and these are not very exuberant, nor inclined to bleed, as is so frequently seen after the use of iodoform gauze. The dressing is only changed about once in eight days, and as long as care is taken to supply drainage, the course of the wound is perfectly normal. He therefore concludes that the very best treatment of suppurative processes is free opening and free drainage, and that disinfection of the wound is not only entirely unnecessary, but even injurious.—*American Medico-Surgical Journal*.

UNEXPECTED RESULT OF TAPPING THE HEART.—Sloan (*Medicine*) reports a case of accidental puncture of the heart after respiration and heart-action had stopped, followed by resumption of heart-action and recovery. The patient was a female, aged 19, a sufferer from erysipelas of the face. In previous years she had three attacks of acute rheumatism with mitral endocarditis. The erysipelas subsided, but a few days later there was evidence of pericarditis and of an aggravation of the endocardial affection. Marked effusion followed the pericardial inflammation, but the patient refused aspiration, though it was deemed advisable from her critical condition. Three weeks after the pericardial friction had developed death seemed approaching. The pulse was very rapid, barely perceptible. The physician was ready to aspirate, but still it was refused. As the physician stood ready to perform the operation respiration ceased and the heart stopped. To quote the author's own words: "In a moment of excitement I jumped up, seized the aspirator and plunged the needle into the fourth interspace, about half an inch to the left of the sternum and a little below the left nipple. To my astonishment, from eight to ten ounces of pure blood flowed rapidly into the bottle of the aspirator, then suddenly stopped, and, to my dismay, I found I had penetrated the cavity of the heart. As I was slowly withdrawing the cannula, regretfully telling the nurse it was all over and to close the patient's eyes, to my surprise the heart made first a feeble, irregular move-

ment, then a sudden jump, and then finally, like a pendulum regaining its swing, it started to beat again." A somewhat rapid convalescence followed; within seven weeks the patient was in apparently perfect health.

In his conclusions the author raises the question whether, if accidental cardiac tapping was in this case, as in some others, followed by recovery, there is not a class of cases where it should be tried as a deliberate remedy, e. g., in cases of asphyxia, suffocation by drowning, accidental hanging, chloroform asphyxia, etc.—*Maryland Med. Jour.* .

CASES ILLUSTRATING THE OPERATIVE TREATMENT OF ILIAC (SPINAL) ABSCESES.—(Dr. James K. Young, Philadelphia, Pa., *N. Y. Med. Jour.*) In this case it had been considered advisable to either trephine the upper part of the crest of the ilium or remove a portion with a rongeur forceps, so as to permit the drainage-tube to lie flat in the iliac fossa. The latter had been done and had appeared to facilitate the drainage and healing of the abscesses rather than to retard them.

The frequency of these abscesses was well shown in Michel's statistics, in which out of forty-eight abscesses of spinal origin, thirty-nine, or 70 p. c., had been in the pelvis.

In regard to the treatment, the opinions of authorities ranged from extreme expectancy to early and radical operation. Two plans of treatment were offered—that of expectancy and that of incision and drainage. Cases were recorded in which, under expectancy, recovery had en-

sued—notably one each of Dr. Taylor's and Dr. Bradford's and Dr. Lovett's, and the speaker had one now under observation in which absorption appeared to have occurred.

There are two other methods to which attention must be called: 1. Repeated aspiration. 2. Injection of fluids to promote absorption.

The former was unsatisfactory on account of the non-withdrawal of caseous clots, and the latter dangerous, and in some cases fatal, from the absorption of carbolic acid. The objections to the early radical operations, especially erosion of vertebræ, was the high mortality, and Dr. Rupprecht, of Dresden, had informed him six years ago that after a fair trial he had abandoned the radical operations, because 50 p. c. of the patients had died from the operation. The operation here advocated was performed under strict antiseptic precautions. The abscess was opened by careful dissection, it was thoroughly irrigated with boiled water and boric-acid solution, a long, grooved director was passed up to a point above the sacro-iliac juncture, and a straight, longitudinal incision was made upon it. A rubber tube was passed through and secured with safety-pins. Emulsion of iodoform (10 p. c.), one-half ounce, was thrown in, iodoform gauze packed about the wound, and a bichloride dressing applied.

The indications for the operation were: 1. Where the abscess was large and making pressure upon important organs. 2. Where the abscess was increasing rapidly in size. 3. Where there was danger of rupture of abscess into the peritoneal cavity.

THE MANAGEMENT OF SUMMER DIARRHŒA.—At this season of the year the summer diarrhœa of infants form a very prominent part of general practice. Dr. Herman B. Allyn has made a statistical and historical study of the subject in the *University Med. Mag.*, from which he concludes that:

1. The summer diarrhœas of infants are primarily instances of poisoning, the poisons being developed in the food, especially milk, or introduced into the stomach and bowels in some other way.

2. Apart from decomposition of food, the most important factors contributing to their fatality are high temperature, a bad sanitary condition of the district, uncleanness of the house and of its occupants, and immorality of the parents or guardians.

3. The occurrence of these cases should be foreseen in winter and early spring, and efforts made then to secure better living quarters and the highest degree possible of nutrition and health in the infants.

4. The most desirable thing is a trust-worthy source of fresh milk-supply. In the absence of the milk laboratories of Boston and New York, it is the personal duty of the physician to look carefully after the milk supplied to nursing infants. In young infants which have to be artificially fed, I have had the best result with peptonized milk.

5. No infants should pass the summer in the city if they can be removed to the country under fairly good surroundings. This should be done as a precaution before July and before they are ill. If summer diarrhœa develops, removal to a cooler place,

where fresh milk can be had, should be accomplished as soon as possible.

SULPHUR AS A SUBSTITUTE FOR IODOFORM.—At a recent meeting of the Royal Medico-Chirurgical Society, Mr. Arbuthnot Lane read a paper on the employment of sulphur as a germicide dressing. He took the dressing up as a non-poisonous substitute for iodoform, from the effects of which he lost a patient last year. He began to use it about a year ago in disease of the hip-joint, and naturally found that it produced a sharp caustic effect on the tissues, with escape of sulphuretted hydrogen. He reported cases of extensive tubercular disease of elbow, knee, tarsus, prostate and spine, or septic gangrene of the leg, of lupus and of carbuncle. He found he could sterilize healthy tissues, so far as organisms are concerned, by applying the powder for twenty-four hours, but in granulating parts, or such as were badly supplied with blood, as, e. g., the brany edge of carbuncles or spreading gangrene, a much longer time was required. No doubt the sulphur is slowly oxidized, and the sulphurous acid is the real disinfecting agent. Some of this is further oxidized, and the sulphuric acid which results is responsible for the caustic action observed. Still, as Mr. Lane found the dressing painless, the caustic acid must be formed very slowly and to only a slight extent. It was suggested that sulphurous acid might as well be used directly, as it was at Metz during the Franco-Prussian War in 1870, with very great success. But even long before that time it was loudly applauded as the

great sulphur cure for diphtheria, foul abscesses, and other conditions where its disinfecting power could be utilized in liquid and in sprays. The powder has also enjoyed considerable repute in diphtheria and other diseases. There are, no doubt, cases in which the sulphur in powder is not only the most convenient form, but one in which the gradual development of the gas may be the most effectual. Mr. Lane may, therefore, be commended by reinforcing the use of one of the most ancient remedies, though all he stated could have been forestalled by therapeutists who know the history of remedies.—*Med. Record.*

TREATMENT OF URIC ACID GRAVEL.—Henley writes in the *British Med. Jour.* for March, 1895, that the treatment of uric acid gravel takes two directions, according as we desire to increase the solubility or decrease the amount of uric acid formed. It is well to remember that in the majority of cases uric acid deposits are due to an increased tendency to precipitation, and not to excessive formation of uric acid.

In cases due to an increased tendency to precipitation we have to give drugs which help to hold uric acid in solution. In spite of the recent outcry against piperazin, the writer has found it of great service, particularly in all cases in which gravel has been due to diminished solvents and not excessive formation of uric acid. In fact, it appears to have no action whatsoever on the quantity of uric acid daily formed in the organism, but merely on its solubility. On this account he gives it in such cases in combination

with alkalies, either in the shape of alkaline waters or potassium bicarbonate combined with iodides. It is as well to remember that as the urine is naturally most acid at night and early morning, and therefore most likely to deposit uric acid, we can get over this by following Sir William Roberts' advice and give the alkalines at bedtime. The diet in these cases is not of so much importance, except in favor of salines and vegetables.

In cases, again, when the uric acid deposit is due to excessive formation, a carbohydrate diet is the most useful. Starch, sugar and vegetables should, therefore, be the staple diet, and meat and fish only in small quantities. The old idea that sugar causes an increase of uric acid has no foundation, as the writer found in a series of experiments performed on himself, when he took as much as a quarter, or even a pound, of sugar a day without causing any noticeable increase in the uric acid passed. Alcohol, on the other hand, should be prohibited, as it causes an increase in the quantity of uric acid voided.

Quinine and arsenic decrease the quantity of uric acid, because they diminish the quantity of leucocytes, and therefore, in cases where gravel is due to an excessive formation of uric acid, they are most valuable. While moderate muscular exercise is of service, excessive exercise is, on the other hand, harmful.

In cases of excessive formation, although alkalies are of some assistance, they, like piperazin, are only of secondary importance by increasing the solubility of the uric acid formed.

The subject of treatment could well

be gone into much more fully, but we have said sufficient to indicate the general principles on which it should be conducted.—*Therap. Gaz.*

ON TAPPING THE PERICARDIAL SAC.—In December, 1891, a girl of 11 years was seen in a second attack of acute rheumatism, the first attack having taken place some years previously, when she was under the care of another practitioner. After the first few days following the onset of the symptoms of rheumatism, the breathing became rapid and labored, and on examination of the præcordial region a to-and-fro murmur was heard over the whole area. Dulness extended from the upper border of the second rib on the same side down to the upper border of the fifth rib on the same side as the child lay on her back. Sodium salicylate was given in 10-grain doses every four hours for three or four days. The joint-pains were relieved, but the effusion into the pericardial sac increased, rather than decreased, and the breathing went up to 60 in the minute.

In consultation it was agreed to tap the pericardium; but to confirm the diagnosis, the writer inserted a hypodermic syringe of 20 minims' capacity between the third and fourth ribs on the left side, and, close to the sternum, withdrew a syringe-ful of serous fluid. In a few minutes the patient breathed more freely and with less frequency, illustrating a point that has been emphasized by Prof. Sir Thomas Grainger Stewart, viz: that the withdrawal of even a small quantity of fluid from the vicinity of a vital organ makes a profound im-

pression upon that organ. Hoping to get further benefit, the author advised and thought fit to remove a larger amount of fluid by means of the aspirator. He thrust in the needle near the original spot some five hours after the first operation, and withdrew two and a quarter fluid-ounces of a serous fluid tinged with blood.

He selected the space between the third and fourth ribs because it appeared to be the spot where the dullness was most marked.

Immediately after this second operation the breathing became more labored and the child appeared to be distressed to an alarming degree. However, in the course of half an hour she calmed down and became comparatively comfortable; but this was only of short duration, for in the course of an hour or more the breathing again became labored and more frequent, and the patient gradually sank, death taking place twelve hours after the second aspiration.

The writer would not again tap the pericardium in a case of effusion attendant on rheumatism, for he believes such cases are best left alone. He then relates in confirmation of this belief the following case:

A woman, aged 30, had repeated attacks of acute and sub-acute rheumatism, and in connection with the one related she had considerable effusion into the pericardial sac. The breathing was much affected, and to one inclined to aspirate there was every indication for performing the operation. Instead of doing this, the salicylate of sodium was given in medium doses, and a large amount of

liquid nourishment was administered at frequent intervals. The result was that the woman got well in the course of a few weeks.—*Ibid.*

BONE SUTURE IN FRACTURE OF THE LOWER END OF THE FEMUR.—Walther (*Medicine Moderne*, April 20, 1895) reports a case in which the lower extremity of the femur was

broken into three fragments, and the tibia was displaced backward, carrying one fragment—the inner condyle—with it. The joint was freely exposed and the fragments reduced and sutured in position. Twelve months the knee seemed rather large; functionally the result is perfect. The joint can be flexed to a right angle.—*Brit. Med. Jour.*, May 25, 1895.

Correspondence.

Editor N. C. Med. Journal:

DEAR DOCTOR:—From the present outlook, the "Cotton States and International Exposition" will be one of the "events" in the history of our country, and especially of the South. Realizing the immense number of physicians who will be present, from all parts of the United States and other countries, I have decided to offer my mite of Southern hospitality to my visiting brethren. Therefore, I extend a cordial invitation to any physician who may visit our city to

make my office his headquarters. Send mail, telegrams, etc., in my care, and I will cheerfully engage rooms, etc., in advance, for any one if advised to do so. The only request I make is to enclose postage for letters of inquiry, which will be cheerfully answered. For any services I may render no fee, commission or any perquisites whatever, will be received or expected.

Fraternally yours,

GEORGE BROWN, M.D.

23½ Whitehall St., Atlanta, Ga.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From July 11, 1895, to July 24, 1895:

Bache, Col. Dallas, Assistant Surgeon General, Medical Director, Department of the Platte, is granted leave of absence for one month, with permission to apply for an extension of ten days, to take effect on or about July 20, 1895.

Alexander, Col. Chas. T., Assistant Surgeon General, is granted leave of absence for two months, to take effect on or about July 13, 1895.

Corbusier, Capt. Wm. H., Assistant Surgeon, will, in addition to his present duties, take charge of the Medical Supply Depot in New York City, during the absence on leave of Col. Alexander.

Polhemus, Capt. Adrian S., Assistant Surgeon, is granted leave of absence for two months, to take effect after his return to his proper station, Fort

Douglas, Utah, and at such time thereafter as his services can be spared by his post commander.

Cabell, Capt. Julian M., Assistant Surgeon, is granted leave of absence for four months on surgeon's certificate of disability.

Middleton, Lieut. Col. Johnson V. D., Deputy Surgeon General, is granted

leave of absence for one month, to take effect on or about the 23d July, 1895.

Gray, Capt. Wm. W., Assistant Surgeon, is granted leave of absence for two months, to take effect on or about August 1, 1895.

Robertson, Capt. Reuben L., Assistant Surgeon, resigned July 3d, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Drs. J. R. Irwin and C. A. Meisenheimer, of Charlotte, have formed a partnership, under the firm name of Irwin & Meisenheimer.

Third International Congress of Physiologists will convene in Bern, Switzerland, September 9th next, and will remain in session five days. The official languages will be English, French and German. Titles of communications may be sent to Dr. Frederick S. Lee, Secretary American Physiological Society, Columbia College, New York City.

REMARKABLE RESULTS BY PROFESSOR KOCHER IN THE TREATMENT OF GOITRE.—At the Congress of German Surgeons, which met on April 17th in Berlin, Professor Kocher, of Berne, reported that in the last nine hundred cases operated on by him the method of total extirpation was wholly abandoned, and only the partial operation was performed. Since proceeding in

this way he has not had any cases of cachexia strumipriva except in one instance, where the remaining part of the gland was found to be atrophied. This case was cured by the internal administration of thyroid gland. Although he was well satisfied with his results, the mortality being only twelve per cent., he hoped that the number of operations would soon be reduced, and that internal medication would be substituted. He made a very remarkable communication, describing the influence of the internal administration of thyroid extract and phosphate of potassium, and showed several photographs of patients where the reduction of the gland after the use of these internal remedies was very obvious. His address was listened to with much interest, and caused a great sensation. Professor Mikulicz said that the internal use of thymus gland was also able to reduce the goitre. Professor

von Eiselberg had not found this to be the fact in his experience.—*Med. Record*.

Cholera is getting a strong foot-hold in Japan, the mortality reaching about sixty per cent. It is hoped, however, that the Japanese authorities, with their modern ideas and intelligence, will hold the disease in check.

The *Southern Medical Record*, Atlanta, Ga., will hereafter be conducted by Dr. Bernard Wolf.

It is proposed to establish a memorial of the late Professor Huxley at the Charing-Cross Hospital Medical School to take the form of an annual lecture and a science scholarship and medal.

There is some prospect of a revival of the *Index Medicus* at a not very

distant day. Two hundred subscribers of \$25 each would ensure that desirable object.

Dr. Quill, of the *British Medical Staff*, in India, has treated a large number of cases of typhoid fever with chloroform and carbolic acid internally, and claims to have had excellent results.—*Ex*.

An account is printed in the *New York Sun* of the resuscitation of a workman in an electric light plant after receiving a charge of about 3,000 volts of electricity into his body. The men had been instructed in the d'Arsonval method of artificial respiration and it proved successful after about seventy minutes of apparent death.

Our subscription list is still open. Add your name to it, Doctor.

Reading Notices.

In prescribing the products of Manufacturing Pharmacists, we should be guided, to a great extent, by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the Robinson-Pettet Company, Louisville, Ky. We do not hesitate to recommend the preparations advertised by them on page 13, this issue.

BROMIDIA.—The steadily increasing use of Bromidia by the profession in all parts of the world demonstrates its great value as a hypnotic. If human testimony is worth anything at all, then Bromidia must unquestion-

ably be the best and safest of all sleep-producers. Dr. Federico Tommasi, of Maggranico, Italy, on July 24, 1893, writes: "Although, as a rule, I do not approve of specialties, still, when I find an ideal one, both as regards therapeutic combination and pharmaceutical preparation, easily administered, prompt and certain in action, I value it. Bromidia fulfills all these conditions. I have obtained especially gratifying results by its use in two cases—one heart disease, the other acute lumbago. In both cases it promptly relieved the pain, produced tranquil sleep, with no disagreeable after-effects."—*The Memphis Med. Monthly*.

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Original Communications.

TREATMENT OF DIPHTHERIA.

BY R. A. PATTERSON, M.D., Aurelia Springs, N. C.

Now, that the treatment of diphtheria by the antitoxin method seems threatened with falling into the "innocuous desuetude" which has overtaken tuberculin, and reports are coming from all parts of the world of disagreeable complications and symptoms following its application, perhaps some practitioners, while willing to think and act fairly towards all new departures, are not enthused with every new device, however impracticable or hazardous. Perhaps some of this class will patiently listen to the statement of some facts and figures in connection with a different system of treatment carefully pursued and described—a plan entirely safe, easy of application and perfectly consistent with the pathology of the disease and will prove more efficacious than the most earnest advocates of antitoxin claim for it.

The system of treatment referred to was set forth in a paper on diphtheria

which the writer read before the North Carolina Medical Society for 1893, at Raleigh, and which was published in the Transactions

It will not be denied that from the pathology and symptoms the antidote must be distinctly antiseptic and germicidal, also that it must be tonic and alterative. The disease is rapid in its course and the success of any line of treatment must depend greatly on an early application of the remedies, for if, through delay, it is allowed to enter the air-passages, the chance of recovery is greatly lessened.

Entertaining this view, and adapting the treatment thereto, the phenomenal success of it verifies its correctness and proves it to be founded on scientific principles and to be devoid of empiricism.

Before detailing the plan of treatment, the outline of the history of some epidemics and sporadic cases which came under the observation of the writer extending back through years will be premised.

In the autumn of 1886 an epidemic of diphtheria occurred in a locality between Weldon and Gaston, in the county of Halifax, whether through contagion or neglect of sanitary precautions, did not appear. There were many fatal cases—in one instance three in one family—and the attending physicians pronounced it to be of a most malignant type. The epidemic extended and entered the bounds of the writer's practice. The first case had his most careful attention. The course of treatment was such as had been inculcated by reputable authors. In spite of every means, it marched steadily on to a fatal termination. The disease spread from family to family; but before being called to another case, the plan of treatment to be cited occurred to him, and in the twenty cases following there was not another death, nor has there been another in his practice since, except one, who was nearly asphyxiated and died in a few hours after being seen, and another who was in "articulo mortis." Let it not be averred that the disease referred to may not have been diphtheria, since there was no microscopic examination made. This would be a lame argument, provided the other unquestionable symptoms were present. For it is claimed that there are two distinct diphtheria bacteria, with absolutely no morphological distinction, the one poisonous and the other innocent. To claim, therefore, that it might not have been diphtheria because there was no microscopic examination made, seems absurd.

The success of the treatment annihilated the epidemic, as there were very few cases outside, and, adopting my plan of treatment, the attending physician was entirely successful, saying there was no use in looking further for a remedy for diphtheria, for that was the thing.

In years next succeeding sporadic cases occurred from time to time, which yielded to the same treatment. In the autumn of 1892 the writer was called to the case of a girl, aged about 12 years, who had been under treatment of a practitioner for five or six days and declining steadily, till at the time he

saw her she was in a dying state and departed the succeeding night. This case was followed by three others in the same family and which were arrested before becoming very serious. Another child in the vicinity was attacked and the parents having had experience with the disease before, applied the remedy as soon as it was detected, and it was arrested at once. During the next week, in a family near by, in which there were seven children between the ages of 2 and 18, the disease presented itself. Having been called to its treatment and the mother being a woman of strong sense and a good nurse, the medicines were prepared and directions given and the management of the cases committed to her. She carried them all through safely without other medical advice.

We now come to the indications of treatment as suggested by its known features. It was stated above that germicides and tonics have yielded the best results.

Some years back, in a prize essay by the late Dr. E. S. Gaillard, he warmly advocated a combination of muriatic acid, tinct. mur. iron and potassium chlorate to be taken internally. This was a most fortunate conception, for this combination, on the addition of water, sets free much of that efficient and excellent germicide chlorine, and yields to the system the tonic iron so much needed in the asthenic condition of the system appertaining to this affection. It is a remedy highly approved by many and will undoubtedly prove curative in some cases.

A combination of pinus canadensis and phenic acid applied locally has been much exalted, and it is affirmed has of itself cured many cases.

The pinus canadensis was a favorite remedy with the late J. Marion Sims for inflamed and ulcerated surfaces. The addition to it of phenic acid brings another powerful antiseptic to the aid of chlorine, and the septic tendency of the disease seems to yield at once to the potency of the two.

Now, it occurred to the writer that if this constitutional remedy, as suggested by Dr. Gaillard, and the excellent local application of the pinus and phenic acid were used in conjunction, they would most probably arrest the rapid advance of sepsis. The result, after long and repeated trial, has verified his most sanguine hopes, and in these two applications, constitutional and local, we have a remedy, a specific, for diphtheria, if there is a specific for any disease. So that, while the writer claims no credit for the disunited elements, he does claim to have first suggested, so far as he knows, the combination, which seems to be the *ne plus ultra* as to treatment of diphtheria.

The details of the treatment are these: As soon as the patient is seen, and not delaying for the action of a cathartic or other medicine, begin to combat the poison at once, by the administration of two tablespoonsful every hour, for adults, and proportionally less for children, according to age, of the following preparations: Potassium chlorate 1 drachm, tinct. mur. iron, 2 fluid drachms, dilute muriatic acid 2 fluid drachms, water 12 fluid ounces, dimin-

ished to one or two doses at night, with tonic doses of quinine, three times a day. The above compound is easily taken by children. Immediately after its administration proceed to mop the throat, depressing the tongue, with a mixture of fluid extract of *pinus canadensis* (Kennedy's preferred), one fluid ounce, and phenic acid, from ten to fifteen drops. The mopping to be repeated after each dose of the solution. The mop may be made of a small twig, with a little lint or rag bound to the end. This simple implement is given instead of a more artistic one, because so easily obtained. The mopping should be done gently, so as not to wound the tender mucous membrane. Petroleum, applied externally to the throat, is not objectionable.

Under this treatment improvement begins at once, the fibrous matter ceases to increase, that which already appears stained black by the red pinus, contracts around the edges and soon drops off, and amelioration of all the symptoms becomes obvious.

A CASE OF INTESTINAL OBSTRUCTION BY WORMS.—Davis (*Virg. Medical Monthly*, 1895, No. 12, p. 1210.) Worms are held accountable for numerous ailments of childhood, but it is certainly rare for them to cause intestinal obstruction. A boy, aged 4 years, with symptoms of intestinal impaction, which the father ascribed to worms, was given 2-gr. doses each of calomel and santonin every hour for five doses, and followed by 6 dr. of castor oil, with 4 min. spirits of turpentine. A scanty movement with two round worms resulted in 24 hours. A day later child was suffering severe abdominal pain; pulse small and thready, temperature 100.5°; tongue heavily coated, brown and dry; nausea and vomiting at intervals; face wore an anxious expression. Abdomen was tender and four or six nodules were felt on palpation. Diagnosis: Worms forming nodules and causing obstruction. Calomel and santonin were given in same doses as before three times, followed by castor oil, 6 drachms, with croton oil, $\frac{1}{3}$ min. Croton oil, min. $\frac{1}{3}$, was repeated in four hours, and again in two. In ten hours the child passed a knot of ten worms. All but two nodules had disappeared from abdomen. Moist and dry heat were applied on abdomen, but in 24 hours there had been no movement, and two nodules remained. Four powders of calomel and santonin (same doses), q. 1 h., and followed in two hours by castor oil, 6 drachms, glycerin, 1 drachm and croton oil 1 min. This acted well, and two nodules containing twenty-seven worms were expelled. More worms were passed next day—in all, eighty-one. The temperature during the illness did not rise above 100°, and child made a good recovery.

ANTITOXIN IN THE TREATMENT OF DIPHTHERIA.

BY ALBERT ANDERSON, M.D., Wilson, N. C.

In 1883 Klebs, in his investigations as to the cause of diphtheria, found a bacillus in false membrane from a diphtheritic throat. Loeffler, in the following year, isolated the bacillus, discovered its culture medium, reproduced the disease in animals with all the symptoms except paralysis. Four years later Roux and Yerson, of Paris, produced this symptom, and thus gave to the world all the necessary proofs of a specific pathogenic microbe; namely:

- (1) Its constant presence in all cases of the disease.
- (2) It is never found in the body except during the course of the disease or incubation period.
- (3) Reproduction of the disease when properly introduced into an animal susceptible to that particular disease.

Scarcely had these proofs been given to the world before the principles of a specific remedy were conceived in the minds of a few distinguished bacteriologists in different parts of the world.

The pioneer in this great work was our countryman, Dr. George F. Muttall, of Johns Hopkins University, the first to discover the bacteriocidal properties of the blood. Among his colaborers, faithfully as well as scientifically working upon the basis of this discovery, may be named the Frenchman Roux and the German Behring as occupying the next places of honor in the galaxy of original investigators. The result of their labors and of others is antitoxin—the serum from the blood of an animal “rendered refractory to the disease of diphtheria.” It is a pale, amber-colored liquid. What I know of the process of making this serum is from observation and study of Dr. J. J. Kinyoun’s work on this line during my stay in his laboratory last January and February. Through the kindness of the State Board of Health I spent about six weeks pleasantly and profitably under the instruction of Dr. Kinyoun and his able assistant, Dr. Rosenau, mainly in the study of bacteriology.

At Washington the horse is used to obtain the serum. He is first examined as to his health. Mallein and tuberculin are injected at different times to diagnose respectively glanders and tuberculosis. If there is no reaction, and the horse is apparently healthy other ways, he is selected.

To immunize an animal it is not necessary to inject the bacilli of diphtheria, but their toxins answer the purpose better. Dr. Kinyoun’s method in preparing toxin is as follows: A virulent culture of the bacillus diphtheria, capable of killing a 500 gram guinea pig in 24 or 36 hours, is put into a flask containing alkaline peptone bouillon. This flask remaining in the thermostat

*Read before the North Carolina Medical Society, May 15, 1895.

twenty-four hours at 36° C., grows sufficiently rich in bacilli to be termed a stock culture. Forty c.c. of this inoculates a certain quantity of sterilized alkaline peptone bouillon, which is put into a flask, having a straight neck and a small opening at the side connected with a tubulature. Several of these are inoculated at one time. Placing them in the thermostat at 37° C. for 24 hours to start them, when each flask is connected with an aspirator for the purpose of passing a moist current of air slowly through the bacilli from mouth to tubulature. After about three week's growth these cultures are filtered through a Chamberland filter tube into sterilized flasks and kept for use: If $\frac{1}{10}$ c.c. of this toxin will kill a guinea pig of 500 gram weight in 24 hours it is considered of standard strength and toxins are graded according to this standard. This is now injected into the horse selected subcutaneously, starting with 0.5 c.c. and gradually increasing the dose as tolerance is established, till 300 c.c. or more may be injected at one time—this producing no general reaction, but only a local œdema, which disappears in a short time. This condition indicates immunization. It has been found necessary to give large and frequent doses of toxin late in the treatment to produce a good quality of antitoxin. To test the strength of the serum, only a small quantity is first drawn. A protective strength of 1 to 50,000 is good serum. For drawing a large quantity of blood, the necessary apparatus consists of a trocar and canula, a rubber tube 20 inches long, one end attached to canula and the other to a glass tube about 10 inches long; this outfit is sterilized and kept in a 5 p. c. solution of carbolic acid. Wide-mouthed bottles, holding about two quarts, are used for receiving the blood. In preparing the bottles, a piece of paper is tied over each mouth and another piece in the shape of a hood is placed over this and then sterilized.

Preparation of the Horse.—A nip is thrown over the lip of the horse and a cloth over his eyes for a blind-fold. Hair over the place selected to enter the jugular vein is clipped and shaven and the skin scrubbed well with a 5 p. c. solution of carbolic acid. Incising the skin down to the vessel, the trocar is thrust into the vein with a steady hand. The assistant, removing the hood of paper, plunges the glass tube into the bottle through the paper and the operator or another assistant compresses the veins below and the blood begins to flow. After drawing about a quart into each bottle, the assistant withdraws the glass tube and immediately replaces the hood of paper. From three to six quarts are drawn at one time. The blood is allowed to coagulate and then removed to an ice-chest in the laboratory to stay 24 hours, in which time the serum separates sufficiently from clot. The serum is then drawn off with sterilized pipettes into a receptacle, after which it is passed through a Chamberland filter, one-half p. c. trichresol solution is added for preservation, and in this condition bottled for use.

A syringe named after Roux is used for injection. It holds about 20 c.c. It is composed of a barrel consisting of metal and glass, which are separated

by two India rubber washers, an India rubber piston, a rubber tube with adjustments and a needle little larger than an ordinary hypodermic. The adjustable rubber tube serves an evident purpose in case the child moves. This syringe is sterilized in boiling water for five minutes before using. When ready to administer the serum, thoroughly cleanse the site of insertion and charge your syringe with just the amount to be used. Gather a fold of this skin in the flank with the left hand, insert the needle with the thumb and index-finger of the right hand at the base of the fold, allowing the barrel of the syringe to rest between three fingers and the palm of the right hand. Now, taking the syringe into the left hand, the right is used in gently pressing the piston with a gentle rotary motion. Place absorbent cotton over the puncture and the serum that flows back through the orifice, meeting with the cotton, forms a good serum plug. No massage is necessary after the injection.

The age of the patient, duration of the disease and severity of the case must determine the dose. As a prophylactic it has a better record than as a remedy. There has been no failure to protect when genuine serum has been given in time and in sufficient quantity. Wherever children are necessarily segregated, as in the family, schools, asylums and other such places, an injection of 5 c.c. for children under 10 years, and over that age 10 c.c.. This is thought sufficient to protect for about two months.

In a suspected case of diphtheria administer a full dose of antitoxin. Make a culture at once, and in 24 hours you can tell whether you have the bacillus diphtheria. If not found, discontinue your serum. If found, the symptoms on the following day will indicate the size of the dose. Some give half dose if symptoms are mild, and others give none. If there is no improvement, give full dose during the day, preferably in two divisions, 10 c.c. in the morning and 10 c.c. in the afternoon. If there be found a mixed infection, streptococci with the bacilli, and the pulse, respiration and temperature indicate an alarming condition, you have to give full doses on two or three consecutive days. An ideal remedy would in such cases be an antistreptococci with the antitoxin. The presence of streptococci or other cocci does not interfere with the action of the serum, but the serum does not act on them, or remove the septic influences of the pyogenic microbes. If these poison and degenerate the cells beyond the reach of stimulation from antitoxin, your patient will die of septicæmia and not of diphtheritic toxæmia.

From 89 to 94 tracheotomies gave 85 p. c. mortality, while the serum treatment has not only reduced this frightful mortality half, but greatly reduced the number of cases requiring the operation. Given in time, paralysis, pneumonia, albuminuria are rare complications.

D. Kinyoun saw 82 cases treated with serum in Paris, of which 3 died, making about 4 p. c. mortality. Thirty cases in Berlin during two week's

stay, and he observed equally as remarkable results. The serum was exhausted and there was none for six weeks in August and September. During this time the disease increased the mortality. Out of 37 tracheotomies all died but 5. The following six weeks, with the use of antitoxin, there were only 8 tracheotomies and of these 4 died.

D. L. Emmett Holt has had 20 cases treated with antitoxin up to the middle of April, and all recovered except a baby suffering from marasmus.

My friend Dr. W. T. Pate and myself saw five guinea pigs inoculated with from $\frac{1}{11}$ to 1 c.c. of toxin, giving to three at the same time $\frac{1}{10}$ c.c. of antitoxin, leaving the two receiving the least quantity of toxin as control. The control pigs, in 24 hours, were nigh unto death; the other three did not even get sick. Two rabbits were inoculated with pure culture on trachea and left for 24 hours, when the sickest was given 1 c.c. of antitoxin and the other left as control and soon death controlled him, and the other, by the aid of antitoxin, was enabled to gain the victory over death, diphtheria and degeneration.

We did not see it sufficiently tried on patients to express an opinion, but doubting as we were, to us *venit vidit vixit* our doubts. The following is what I have read from a personal letter: "Were I to have diphtheria I would have the serum administered, because I believe it the best agent we now have, remembering it is not a cure-all." Two hospitals in Paris—one not using the serum had 60 p. c. mortality—the other using it in the same epidemic and at the same time had 24.5 mortality, showing a difference of 35 p. c. in favor of antitoxin. Many months ago unbiased observers admitted, and still admit, that the mortality rate has been divided by two since the use of antitoxin.

These are my deductions:

1. It acts as a specific against diphtheritic toxæmia.
 2. The earlier administered the better to limit the disease and prevent complications.
 3. It does not restore any degeneration produced by the previous work of toxæmia and septicæmia.
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Ophthalmologists who use the ophthalmometer and who oftentimes find the corneal reflection dull and obscure, with no apparent reason, will find that a drop of liquid albolene instilled into the eye will yield a brilliant result in making the images sharp and clear-cut and with no effect on the estimation of the astigmatism.—*Ex.*

CLEAN MIDWIFERY, WITH REPORT OF A CASE OF UNCLEAN MIDWIFERY.

By F. H. RUSSELL, M.D., Wilmington, N. C.

By clean midwifery is meant midwifery not encumbered with anything useless—perfect, complete. Its principles are simple, its practice easy, requiring the virtues, perseverance, patience, thoroughness. Its results are too well known to dwell upon, depriving child-birth of much of its former horror, robbing death of many of its fairest victims, women in the prime of life performing their office of mother and help-mate, the time of all times at which they could least be spared.

History.—This dates from the time when the true pathology of diseases of the puerperium was first properly appreciated, which was the key-note to their prevention and successful treatment. In the time of Hippocrates and Galen the results of unclean midwifery were thought to be due to the suppression of the lochia, this doctrine holding sway for about twenty centuries. This was followed by the doctrine of milkmestassis. These in turn were followed by the doctrines of inflammation of the womb, peritoneum, veins and lymphatics. Many considered it a specific infectious disease, such as typhoid fever. In 1850 Sir J. Y. Simpson published a paper entitled "The Analogy between Puerperal and Surgical Fever," which was the beginning of the modern doctrine. Several years previous to this Semmelweis asserted that puerperal troubles were common in the practice of those who examined patients after performing post-mortems, or students attending patients while working in the dissecting room. He was considered a crank, and was rewarded by ridicule, but with the advance in other branches of medical science, this branch also advanced, and to-day it is an established fact that puerperal diseases are due to germs, either putrefactive or infective. The putrefactive germs are termed bacilli, and depend for nourishment upon some foreign proteid substance, such as blood-clots, pieces of membrane, etc.

Their excreta are called ptomaines, which are capable of absorption by the uterus and are the offending agents. Puerperal troubles due to this cause readily respond to treatment, because as soon as the uterus is cleaned out the supply of ptomaines cease and the organism, with its wonderful eliminating glands, soon dispose of the dose it has. The infective germs are termed streptococci; these possess the power of invading living tissue and are in themselves poisonous. This germ is the cause of the true infective puerperal fever, although the putrefactive germs are found with it. These

*Read before the North Carolina Medical Society, May 15, 1895.

germs must get into the system before they can cause trouble. Their avenues of introduction are seven in number:

1. The genital passages, as by an examination with a septic finger, filthy clothes coming in contact with the vulva, or by the patient's scratching her vulva with a septic finger; it has been said that the water-closet has acted as a source of infection by the mucous membrane of the vulva coming in contact with the foul emanations from the sewer.

2. Wounds of the genital passages.

- (a) Lacerations of cervix.

- (b) Lacerations of vagina, the base of the clitoris, is a favorite place for laceration.

- (c) The perineum.

- (d) The head lying in one position too long, may cause sloughing of the underlying tissue.

3. The bladder, either introduced by a catheter, or may wander from the vagina; from the bladder they may wander through the ureter into the kidneys.

4. The rectum, as by a septic syringe nozzle.

5. The breast.

6. Respiratory organs.

7. Intestinal canal.

Having seen that there is a germ capable of introduction by the above-named avenues, and knowing the dire results which follow its introduction into the system, it became evident that if the germs were prevented from entering the system the puerperium would be robbed of its dangers. As we all know, this has been demonstrated by clinical facts. The prevention comprises clean midwifery, which involves three factors—the patient, physician or nurse, and the surroundings. The surroundings necessarily depend upon circumstances. It is those in the middle and lower walks of life whose surroundings we must modify. As to the room, it should not be too small; it should be exposed to sun-light, if possible, and be well ventilated. If the bed has been in use long, it should be scrubbed up and sunned. A mattress should be used and all unnecessary clothes, ornaments and furniture should be moved out. For a bed-protector there is nothing better than a piece of oil-cloth, or a piece of canvass which has previously been boiled. The bed linen is put on fresh, and then the bed is ready for the patient.

As to the patient, she should take a thorough bath with warm water and soap. She should have a copious enema of warm water and soap. The vagina should be douched with a 1 to 2000 bichloride solution. She should clean and cut her finger-nails, and when the physician has prepared his antiseptic solution she should soak her hands. She should put on fresh linen; after this an antiseptic pad should be placed over the vulva; one may easily be made by wrapping a piece of absorbent cotton or oakum in sterilized

gauze, and the breasts and axillæ, after a thorough scrubbing with a boric acid solution, are to be covered with borated cotton, kept in place by a sterilized binder.

As to the physician, his hands and arms should be prepared as follows: Nails cut and cleaned, hands and arms scrubbed by means of a brush with hot water and soft-soap, then washed in plain water, next immersed in a hot bichloride solution, 1 to 2000, in which they should remain for three minutes; if they are simply rinsed it does not wet the several layers of dry, horny scales which form the stratum corneum of the epidermis, beneath which the germs may hide and remain unhurt. The hands should be allowed to dry—never use a towel; next they should be immersed in a 5 p. c. solution of creolin, remaining for one minute. This is antiseptic and lubricant; in the lying-in hospital of the University of Maryland the rules relating to the time were very strictly observed. Some claim that it is unnecessary to use bichloride, soap and water being sufficient, but for the busy practitioner, who makes, possibly, a rectal and vaginal examination of one patient, lances a felon for another, is then summoned to a case of labor, for the benefit of his patient he should use bichloride. I mention bichloride because it is the neatest, least troublesome and among the best antiseptics. An apron should always be worn, pinned to which should be a sublimated towel, which is useful. In this connection it is well to remember that failure to carry out the minutest details in antiseptics may lead to disasters of the greatest magnitude. Remember the old expression, "*omnia ex ovo*." Vaginal examinations should be as few as possible. The third stage of labor should be carefully managed or clean midwifery may fail. In those cases where it becomes necessary to separate the placenta from its attachment or in any way interfere with its delivery, it should be carefully examined to see if any part has been left. At the end of the third stage a hypodermic of strichnine-nitrate, one-fortieth of a grain, should be given and a nose of ergotole or fl. extract of ergot.

The strychnine tones up the muscles, acts as a general stimulant and lessens the shock which necessarily follows labor. Ergotole insures better contraction of the uterus, thereby forcing out all clots which otherwise might be retained and become infected. This is more important in multiparæ, as with each succeeding labor the uterus becomes more inert. During the interval between the second and third state of labor sterilized gauze, wet with an antiseptic solution, should be kept over the vulva. After a normal labor it is unnecessary to use an antiseptic douche, as the placenta wipes out the canal, and this is followed by a douche of blood from above.

Nature's Antiseptic Fluid.—In many cases in which the strictest antiseptic precautions have been observed we will have fever, temperature 100°, but it will be noted that the patient is cheerful and does not feel sick; this is Volkman's aseptic fever, due to the absorption of blood serum. The nurse

should prepare her hands just as the physician, except the creolin solution; this should be done each morning before making the patient's toilet, and if she has occasion to touch the cord she should be careful not to hand the mother a cloth before cleansing her hands, or otherwise convey germs to her.

Van Horn and Ellisou, Park Avenue, 41st Street, N. Y., prepare an obstetric case which constitutes a valuable armamentarium; it consists of 2 sterilized bed-sheets, 4 doz. sterilized vulva pads, one 4-qt. douche bag, with glass nozzle, 1 zinc douche pan, 2 sterilized mull binders, heavy, 5 yds. sterilized gauze, 1 yd. 10 p. c. iodoform gauze, two 3-inch heavy mull bandages, sterilized, 1 lb. sterilized abs. cotton, 1 sterilized nail-brush, two 12-inch papier-mâché basins, rubber sheeting, 1½ yds. by 2 yds, rubber sheeting, 1½ yds. square, rubber on both sides, safety-pins, 2 ozs. carb. vaseline, 4 ozs. powdered boric acid, 4 ozs. 50 p. c. carbolic acid solution, 2 ozs. green soap solution, 2-100 grms. chloroform, 1 oz. t. e. ergot, 1 small bottle bichloride tablets, 1 small bottle sterilized tape.

The physician should always see that the breasts are properly cared for during the last weeks of pregnancy, the nipples should be washed in a solution to harden them. Listerine and alcohol, equal parts, answers the purpose, gently drawing them each day also prepares them. Mammary inflammation is preceded by infection of the nipples, as a fissure or excoriation of the nipple; this can be prevented by keeping the nipples clean, using a weak solution of boric acid just before and after nursing. Attention to the cord also comes in the domain of clean midwifery. I always treat it as if it were the stump of an arm I had amputated. Wash it off with plain water, then dust with iodoform and put on iodoform gauze, 10 p. c., over this a piece of borated cotton, then the bandage. This need not be opened in four days. Equal parts of acetanilide and boracic acid and carbolized gauze would probably do as well, and be more pleasant to those around.

A Case of Unclean Midwifery.—The majority of troubles after child-birth at the present time, we might say, are caused *directly* by the ignorant granny of to-day, about which enough has been written, and *indirectly* by germs. For this reason the young physician is called upon to treat most of the unclean midwifery, as his practice is largely among those who are dependent for treatment upon midwives.

Case.—Mrs. C., American, married, age 32 years, was delivered of her fifth child, a boy, weighing about seven pounds, December 3d, 1894, after a short and normal labor—a midwife officiating. On December 6th says "she had a chill but no pain." December 7th chill and general pain. I was called in December 8th—respiration 28, pulse 140, temperature 105°, countenance very anxious, vomiting frequently, complete anorexia, tongue heavily coated, tympany marked, tenderness over abdomen, offensive diarrhœa.

Treatment.—No anæsthetic given. She was put on a table, the external genitalia and surrounding parts were scrubbed with pearline, the vagina

washed out with a 1 to 2000 solution of bichloride. The instruments having been sterilized, the patient being on her back, an Edebohl's speculum was introduced (this is preferable for this class of work, as it is self-retaining); the uterus pulled gently down with a Skeene's tenaculum, the entire inner surface carefully scraped with a curette; a small quantity of decomposing blood-clots was scraped out; involution had not begun and the organ was very tender. An intra-uterine douche of 1 to 3000 bichloride solution was given, continuing until the solution came away clear. Then the cavity was packed lightly with iodoform gauze, 10 p. c.

I think this a very important part of the treatment. It acts as (*a*) drainage; (*b*) hæmostatic; (*c*) stimulant—it stimulates the uterus, causing contraction, thereby promoting involution—(*d*) it is a good mode of applying a reliable antiseptic to the uterine cavity; (*e*) if there is a pus-producing surface at the late placental site, by its antiseptic and stimulating properties it sets up healthy action; (*f*) it aids in the production of a hasty convalescence; (*g*) it prevents endometritis, salpingitis, ovaritis, uterine displacements, leucorrhœa, etc., from following in after life.

The introduction of the gauze is greatly facilitated by the use of a Polk's applicating speculum. By its use the irrigation is better done.

The vagina was then washed out with bichloride solution, 1 to 2000, and packed with iodoform gauze and an antiseptic pad applied to the vulva. While the treatment was being carried out the bed-clothes were changed, all unnecessary furniture and clothes were removed and one quart Platt's chlorides sprinkled around.

December 9th respiration 23, pulse 90, temperature 99°; elixir iron, quinine and strychnine ordered three times a day, with milk-punches.

December 10th, respiration 22, pulse 84, temperature 98½; vaginal gauze removed and fresh introduced.

December 11th, respiration 22, pulse 80, temperature 99°; vaginal and uterine gauze removed and a carbolized douche given and an antiseptic pad re-applied. Recovery continued uninterrupted.

Other cases illustrative of this plan of treatment might be reported, but I deem this sufficient.

DISCUSSION.

Dr. Booth had noticed one sentence which was not in the paper, but which was inserted, as he heard, that he had been in the habit of giving $\frac{1}{40}$ grain of nitrate of strychnine to make the uterus contract. That seemed very good treatment, but he said he would give it in even larger doses after hearing the discussion this morning. The giving of strychnine in these heroic doses is going to get somebody into a scrape. We must not forget that we may meet a patient who cannot stand such large doses. He related the following case: He had been called to see a bad case of typhoid fever. The patient

was nearly dead, having had hemorrhage. The physician who had called him in consultation wanted to give $\frac{1}{30}$ of a grain of strychnine under the skin, and did so. In less than a half hour the fellow had a convulsion and died right there. Some people can take more strychnine than others. He would have given this fellow $\frac{1}{30}$ of a grain, and, if necessary, after awhile have given him another $\frac{1}{30}$. It will not do to give these heroic doses of strychnine.

Dr. Faison rose to say that they were talking of cases where there was absolute necessity to do something, not where there were two or three weeks for treatment, but in cases after post-partum hemorrhages. In such another case as the author had given he would not hesitate to give $\frac{1}{10}$ of a grain of strychnine; in a case of post-partum hemorrhage he would not hesitate to give $\frac{1}{10}$ of a grain of strychnine at one time.

Dr. McMullan said that he would not give a patient more than $\frac{1}{10}$ of a grain the first time, and if he was not better in a half hour he would give another dose.

Dr. Sykes said that a great portion of the audience were young men and some of them might make a mistake. In a case which he attended he gave $\frac{1}{10}$ of a grain and she had convulsions from 10 in the morning till 12 at night. It was a case of abortion, but not such as had been described in the morning. It was his candid opinion that the young men of the profession had better be very careful about giving $\frac{1}{10}$ of a grain of strychnine. He had seen a case in which 2 grains of morphine were given in doses of $\frac{1}{4}$ of a grain at a time, which was repeated until relief came, which was forever, for he went to sleep and never waked again. He appealed to the young men of the body to give these potent drugs in small quantities. If large doses are given and the patient lost, then the reputation is lost, and a reputation lost cannot be builded again. Be careful until your reputation is established, so that the death of your patients will not damage it.

Dr. Burroughs thought that he had used it as freely and in as large doses as any man in the State. He meant nitrate of strychnine. He had had Parke, Davis & Co. make him some tablets $\frac{1}{16}$ of a grain and some containing $\frac{1}{8}$ of a grain. He had treated probably several hundred patients with strychnine, giving it twice a day, until he had gotten them up to about $\frac{1}{8}$ of a grain twice a day. He got stimulation of heart from it, and had never poisoned a patient. These doses were not given hypodermically.

Dr. Haigh wished to render his personal thanks to Dr. Sikes for his speech, advising cautiousness in the use of drugs. Had he been a jury and the man brought before him, he would have found him guilty of murder. There has been no better suggestion made at this meeting than that they should be careful in giving these potent drugs.

Dr. Kent was glad of this discussion. He had used nitrate of strychnine, and could honestly say that no man in the audience had been more cautious

in his administration of it; if he had ever erred it was because of fear of giving beyond what he thought was safe. He had never given in the beginning more than $\frac{1}{80}$ of a grain. Sometimes he gave $\frac{1}{40}$, but the safe way is to give little except in the extremest cases, where the life of the patient is ebbing away quickly, then they are warranted in using heroic doses. Where there is time for small doses, give them, by all means; it is a valuable remedy. Dr. Mays suggests $\frac{1}{80}$ of a grain to begin with; I suggest $\frac{1}{60}$, and give that as you see necessity for it; or, in extreme cases, begin with $\frac{1}{20}$ of a grain and repeat that if you see no effect.

PROFESSOR LABADIE-LAGRAVE has used antipyrin successfully in the treatment of certain uterine hemorrhages. It is difficult to introduce powdered antipyrin into the uterine cavity, so it occurred to him to use antipyrin liquified with salol, thus producing a medicament at once hemostatic and antiseptic. The following is the mode of procedure: Equal parts of antipyrin and salol are placed in a test tube so as to occupy about one-third the space; they are then heated over an alcohol lamp, when the mixture is soon transformed into a clear liquid with a slightly brownish tinge. This is not the time to use the solution, for it will solidify too rapidly. The heating is continued until a well-defined brown color is noticed, when there is no longer any danger of its rapid solidification. The liquid is introduced by means of cotton soaked in it and rolled on a wooden applicator; after seeing that the liquid is not too hot, the application is made through the speculum. If the hemorrhage is excessive, two applications are made at the same sitting, after which a tampon, soaked in glycerated creosote, is placed in the vagina and the patient sent to bed. The applications are free from danger and occasion no pain. Their hemostatic action is rapid, sure and complete; the hemorrhage is quickly stopped and by the second day there is no trace of hemorrhage; it is rare that the application needs to be repeated. The method is efficacious against hemorrhages due to fungous metritis, to misplacements, fibromyomata and also to malignant tumors in the beginning, when the hemorrhage is due more to congestion than to ulceration.—*Maryland Med. Jour.*

The latest remedy for the vomiting of pregnancy is a twenty per cent. solution of menthol in olive oil. The dose is ten drops on sugar when the nausea appears.—*Ex.*

AN OBSTETRIC RESOURCE AND NECESSITY.

BY J. R. IRWIN, M.D., Charlotte, N. C.

In 1893 I contributed an article to *The Charlotte Medical Journal*, on rectal injections in obstetrical cases, and, after a still more extended use of them, am more convinced than ever of their utility and necessity in such cases.

While parturition is a natural process, yet, in civilized life, the woman needs some assistance, and every attention that will contribute to her comfort, facilitate labor and assist to effect the safe conduct of the parturient woman, is one of the great objects of medical practice and the obstetric art. And although labor is a natural process, it is safe to regard every parturient woman exposed to dangers and complications which may imperil her safety.

From the casual way in which enemata are recommended by authors and writers on obstetrical matters, only suggesting their employment "in case the bowels have not acted," we would naturally infer that they are of little consequence. And if the practitioner relies upon what the patient says in regard to condition of her bowels, he will rarely meet with an indication for their use, for she almost invariably says that her bowels have acted previous to or since the beginning of labor. Perhaps this may be correct, but few women escape during the last weeks of pregnancy from an accumulation of fecal matter, which, in some instances, is enormous in quantity, and what they call regular action may be associated with very imperfect removal of the contents of the bowels. Therefore most women need them to relieve this condition, and rectal injections should be one of a series of attentions that the physician should give his patient. By so doing he not only relieves a slight mechanical impediment to the process of labor, but he thus prevents the involuntary defecation that so often takes place with the last expulsive pains, to the mortification of the patient and utter disgust of the attending physician.

Another advantage to be secured by a thorough evacuation of the contents of the bowels is, wounds of the fourchette or slight perineal lacerations are not contaminated with fecal matter, and subsequent infection from this source is thus avoided. Recently I read an account in one of the medical journals of a case of peritonitis, which began as an endometritis, caused by the presence of the bacterium coli commune, the inflammation extending through the intermuscular connective tissue of the uterus to the parametric tissue, and thence to the peritoneum. Hence another indication for the thorough evacuation and cleansing of the bowel. Of course the genitalia should be bathed with an antiseptic solution after each movement from the bowels.

There is one point that should be emphasized. When a woman passes

*Read before the North Carolina Medical Society, May 15, 1895.

through the act of parturition with accumulations in her bowels and enters the puerperal state with a distended intestinal canal, the bowels continue sluggish. In some instances I have no doubt that the retained feces produce an intestinal irritation which may be continued to the serous coat and may assume the proportions of peritoneal irritation, and even that of acute peritonitis.

Perhaps you all have noticed the tardiness with which even slight wounds heal, if the excretory processes are not going on freely. A mere scratch, abrasion or sore will be several days healing under such circumstances, and because of an altered state of the blood, consequent upon constipation, and it is a well-known fact that constipation may derange some of the most important organic actions. The circulation of azotized matter, nitrogenous waste, excretory substances, which hepatic and intestinal activity should eliminate, makes the earlier steps of digestion impossible. Improvement after purgatives illustrates the dependence of all the functional activities of the body on the prompt removal of accumulated excretory matter. These patients, if not already suffering from indigestion, are in a condition to suffer from its effects, and indigestion does not mean alone the defects in gastric and intestinal reduction of food, but also the perversions of absorption, assimilation and excretion, with the morbid states they create, and are causes of not only functional disorders, but secondary pathological changes in various parts of the body. And the toxins of the blood may render the uterus and appendages more vulnerable to germs which may be present, and as there is congestion of all the parts concerned in labor, the tissues are rendered more susceptible to any germs present.

Bacteriologists have discovered that normal blood is antagonistic to germ life, and is the sentinel, constantly on the alert to guard the citadel of life. Impoverished blood, which lacks some of its normal elements, or is surcharged with abnormal or foreign ones, furnishes a favorable nidus or culture-ground for the development of disease germs. Many of the ailments of childhood are due solely to imperfect action of the bowels, which we often see completely relieved by the administration and action of a purgative. And gynecologists tell us that coprostasis may give rise to pelvic troubles, such as metrorrhagia, dysmenorrhœa, etc. And in everyday practice we see cases of constipation, where the liver has become clogged with the effete products of metabolism, and the retained nitrogenized material perhaps causing a rise of temperature, and other symptoms. Whether this is true or not from a pathological standpoint, it is certain that treatment based on this reasoning is often gratifying in the highest degree.

All obstetricians advise attention to the intestinal functions immediately after delivery, which is well, but thorough evacuation beforehand is better. In all operations of selection surgeons advise that the bowels be opened by purgatives or enemata as preparatory treatment. Thus we see the impor-

tance of attention to the condition of the bowels at this time, and if a physician is engaged to attend a case of labor he should give minute instructions in regard to this matter, so as to avoid constipation, and he should not fail also to administer a rectal injection after being called to the case.

What has been said, so far, relates to the employment of rectal injections to aid in securing the best possible condition in which the woman should pass into the puerperium. There is another use for which I wish to recommend them, and which, so far as I know, has never been suggested except by me, to accelerate and increase the expulsive character of the uterine contractions, render them more efficient, and thus expedite the delivery of the child.

Women, especially primipara, at the beginning of the second stage of labor, frequently hesitate to exert abdominal contraction, fearing that this will increase their suffering. This accessory force of the pains, the abdominal pressure, which acts upon the progress and expulsion of the child, may be regulated by the will, and in the effort to evacuate the bowels sets in voluntarily. In such cases a most excellent effect was observed after the injections, the ecboic action showing itself in from twenty to thirty minutes, and nearly always lasting until the birth of the child; the contractions being regular, strong and free from any tetanic tendency. Sometimes spasmodic contractions of the external os, where the upper part of the uterus has not manifested power enough to overcome the resistance, the injections increase this power, the so-called spasm ceases and the os opens. Very often, prior to complete dilatation of the mouth of the womb, feeble contractions are observed, before or after the rupture of the membranes, and this defective uterine action may have characterized the labor from the beginning, or after hours of unproductive uterine action.

So that, besides the indirect action in labor of the abdominal muscles and the diaphragm, brought about by the use of injections, the direct action of the uterus is increased and its expulsive efforts made more efficient. This action is due to a reflex irritation of the terminal nerves of the bowel, which is communicated to the connecting fibres of the ganglionic or spinal nerves, and thus conveyed to the uterus, it contracts reflexly.

Frankenhauser says stimulation of the hypogastric plexus causes contraction of the uterus. The fibres arise from the spinal cord, from the last dorsal and upper three or four lumbar nerves, run into the sympathetic and then reach the hypogastric plexus.

Basch and Hoffman say that stimulation of the sacral and lumbar parts of the cord causes powerful uterine movement. As the parturition centre and the centre (Budge's) controlling the act of defecation are situated in the same part of the cord, in close proximity, and during labor the reflex activity of the spinal cord undergoes augmentation and the irritability of the uterus is increased, it is not unreasonable to suppose that rectal injections of a saline

solution may stimulate uterine action. Laying aside theories in regard to the matter, and after an extended use of them and observation of their action, I am convinced that it is a clinical fact.

Another advantage and use: In exceptional and occasional cases of post-partum hemorrhage transfusion of saline solutions are practiced to aid in a mechanical way and even to excite the circulation. By the administration of rectal injections of a saline solution this necessity, if not prevented, is anticipated. Because a considerable amount of it is absorbed, as is evidenced by the thirst experienced, and this, together with the fluid imbibed, fulfills the indications for transfusion.

In regard to the method of administering rectal injections very little need be said, for most of the gentlemen present are familiar with the procedure. The solution I have been accustomed to use, as stated in the outset, is chloride of sodium (common salt) from one to two ounces to the quart of water. The temperature of the water should be about 98° to 100°. Though I have had splendid results from cold water, the warm water is usually more acceptable to the patient.

Place warm rubber sheet under the patient to protect the bed, and put her on the left side with the knees flexed. It is necessary that the fluid be introduced slowly, the operator stopping for a time whenever the patient feels contraction coming on, and a cloth should be pressed against the rectum to assist in retaining the water. If the bowel is only gradually distended, two pints or more may be introduced before reflex action is excited. During this contraction the water is prevented from passing off by the voluntary efforts of the woman, together with the descent and impinging of the womb against the rectum, and then travels in an upward direction, that is, antiperistalsis is brought about, which empties the rectum and fills the colon. As soon as the pain passes off the injecting process is resumed until the return of another pain. Often a considerable amount of water may thus be injected, insuring a thorough evacuation of not only the rectum, but entire colon, together with the stimulating effect upon uterine action by sympathetic reflex action.

When labor is too far advanced to permit the woman to use the commode, the bed-pan can be placed under her. To sum up:

1. Rectal injections are indicated in labor to remove a mechanical obstacle to the progress of labor.
2. To prevent absorption of excretory matters into the blood.
3. To prevent local contamination of fecal matter and germs.
4. To anticipate the necessity for transfusion of salines in case of hemorrhage.
5. They may be used as a co-efficient in increasing uterine action and accelerating delivery.

In conclusion, if any apology is necessary to the members of this Society for calling their attention to this subject, and if rectal injections in labor are regarded of minor importance, let me remind you that "He that is faithful in that which is least, is faithful in that also which is much."

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

Regular meeting, Dr. Wm. S. Gordon, President, in the Chair.

Dr. James W. Henson read a paper on the History of Cholelithiasis and the Anatomy Relating to that Disease. Among other things, he drew attention to the size of the cystic, hepatic and common bile ducts in their various parts, to the size of the opening on the papilla and to the relation of the duct, artery and vein in the transverse fissure of the liver. He stated that there were few muscular fibres in the coat of the gall bladder, and these did not have much power.

DISCUSSION.

Dr. A. H. Levy said from all he could gather he was very much under the impression that the muscular elements of the gall bladder and ducts were very important, and if so, they must exist to some extent.

Dr. Hugh M. Taylor: In connection with the anatomy of the gall bladder there are two important facts of which no mention has been made:

1. The rich system of lymphatics which, in certain conditions, will aid the diffusion of septic matter.
 2. The rugæ of the mucosa, which predisposes to inspissation of the bile and formation of stone.
-

Dr. H. H. Levy read a paper on the Physiology of the Bile and Gall Bladder and the Etiology of Cholelithiasis. The color of the bile varies, as does its consistency. When fresh it is slightly viscid, due to the mucus of the bladder and ducts. Normally, it is of a neutral reaction, but may be alkaline, or even acid. The important constituents are:

1. Mucus, prone to decompose and cause alterations in the chemical constitution of the bile.
 2. Bile salts, taurocholate and glycocholate of sodium.
 3. Pigments, the chief being bilirubin and biliverdin, the former often occurring in combination with alkalies. It is similar to hæmatoidin.
 4. Cholesterin in small amounts, characterized by being lævo-rotatory and occurring in rhombic plates that seem to have one corner broken off.
 5. Diastasic ferment.
 6. Traces of urea.
 7. Inorganic constituents: salts as found in most other secretions and a considerable amount of CO₂ in fresh bile, either free or in combination.
- The small amount of chlolesterin is noteworthy.

The secretion is not a mere filtration, but a product of the liver cells, always going on, greater at times than at others. It does not pass immediately into the intestine when digestion is not taking place, but regurgitates to the gall bladder, where it is kept until needed.

The quantity secreted in twenty-four hours is about 1-14000 of the body weight; and the period of greatest flow into the intestine is about three or four hours after the ingestion of food. Circumstances influencing secretion are as follows:

1. Food—nitrogenous increases it more than vegetable, while fatty foods have no effect.

2. Water in large amount increases the quantity, but lowers the specific gravity.

3. Other things equal, an increased blood supply increases the quantity, and *vice versa*.

4. Any condition increasing disintegration of the red corpuscles, increases the quantity of bile.

The flow is influenced by—

1. The vis-a-tergo.

2. Descent of the diaphragm pressing on the liver and in inspiration. Negative pressure produced by inspiration also aids it.

3. Contraction of the muscular fibres of the bladder and ducts.

4. Stimulation of the cord as by passage of food into the stomach and duodenum. In this connection a practical point to note is, a small amount of resistance to overflow is sufficient to cause stagnation of the bile.

Disposal of the Bile.—The water aids the maintenance of the softness of the fæces. Mucus passes out unchanged. The pigments do not appear in their own forms in the secretions, but as hydrobilirubin, urobilin and sterco-bilin. The meconium of the fœtus contains the pigments unchanged. The bile salts are mainly reabsorbed. Cholesterin and lecithin are formed in the fæces.

Composition of Gall Stones.—Cholesterin constitutes, by far, the greatest number, but all do not contain it, and often it is mixed with fatty or saponaceous matters or pigments. Some are composed of bilirubin (mostly in combination with calcium), in strata or masses of cholesterin. Hydrobilirubin may alone form them, as also may glycocholate and taurocholate of calcium. Many are made up of fatty acids and soaps. Mucus and epithelium occasionally constitute small stones or the nuclei of larger ones. Sometimes they are formed of the oxides of the heavy metals with occasionally nuclei of globules of mercury, and sometimes there is a chalk stone of the earthy carbonates. The nucleus is mostly composed of a little mucus from the gall bladder. The physical characters are varied, some being white, simple and homogeneous; but more commonly they are mixed either in radiations from the nucleus or in concentric rings around it. The crust is nearly

always of pure cholesterin, but sometimes it is formed of fatty acids, coloring matter and cholesterin.

Etiology.—The oldest supposable cause for the formation of gall stone is inspissation, but it is rare to find all the constituents of the bile, except water, in a single stone. Other theories are, lessened secretion of sodium, action of an acid, increased amount of lime, forming with the pigments a nucleus, secretion of calcium from the mucous membrane of the gall bladder. All stones, however, do not contain all these substances. Formation is chiefly due to the precipitation of some one substance, and this does not occur until glycocholate or taurocholate of sodium decomposes, when the reaction is changed to acid.

In order that the concretions should be of any size, it is necessary for the bile to be retained in the gall bladder or ducts for some time. Sometimes erosions are found in the stones, caused occasionally by depositions; sometimes they divide, and these conditions make their disposal much easier of accomplishment.

The influence of age on the formation of biliary calculi is difficult to understand, unless it be due to the habits and changes age brings. They are most common over 25 years. Females are more prone than males, three to two. Multiparity predisposes, as do diseased conditions anywhere; morbid changes in the liver and its passages, cancer, adhesions to various organs. Another cause is sedentary habits. Too long intervals between meals favors stagnation. It is doubtful if there exists a diathesis predisposing to stone.

DISCUSSION.

Dr. Taylor quoted Murphy, of Chicago, who says the gall bladder plays an insignificant part in the storage of bile. If this is not so, removal should be attended by disastrous results upon the system. In fact, it is not. It is always found filled with bile whose specific gravity varies from that of the liver. It subserves the purpose, says Murphy, of controlling the discharge—making it continuous—by keeping up tension like the second bulb of an atomizer. A puncture of the gall bladder does not contract, and the bile continues to flow from it, demonstrating the absence or insufficiency of the muscular fibres.

Dr. Landon B. Edwards contended that if the bladder acts as a second bulb, it must do so continuously, causing it to empty itself eventually. Then if a puncture allows the continuous escape of bile, where can it come from? The bladder may act as the first bulb, but to his mind, the second bulb idea is erroneous.

MARK W. PEYSER, M.D., Secretary and Reporter.

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ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

PRECISION IN WRITING AND FILLING PRESCRIPTIONS.

All physicians in writing and all druggists in compounding prescriptions should keep constantly in mind the importance of being exact, even in the smallest particular. We have seen prescriptions so illegibly written that it was impossible for any one but the writer to more than guess at what was desired. It is a physician's duty to take sufficient time and care in writing a prescription that the druggist can make no mistake. No matter how simple the prescription, the same care should be exercised, for otherwise the druggist may dispense some potent drug which may

seriously retard the patient's recovery or even endanger his life. Writing a prescription while carrying on a conversation with some one who desires to learn as much as possible of the patient's condition, or by insufficient light to enable one to see a word after it has been written should be avoided.

The physician having written his prescription plainly and carefully, and having checked it over to see that ingredients and doses are all right, it is the druggist's duty to go over it and see that no unusually large doses of any potent remedy have been prescribed without some indication from the writer of the prescription that the dose was intentionally or

dered. Satisfied that he understands the writer's wishes thoroughly, he should give his undivided attention to the compounding of the prescription, and not attempt to carry on a conversation with some friend who happens to be loitering in the store, or stop to sell a glass of soda-water or a cigar. The prescription is more important than the mere amount of money he receives for it. It has to do with the patient's life and is a high trust that should be appreciated and faithfully carried out. The smallest details should be followed, for it is not the druggist's place to know whether "this is all the same and will do as well."

We have recently seen an instance where a failure to comply with what the druggist thought a small matter, came near resulting very seriously for the patient.

The patient was in the latter part of the second week of an attack of typhoid fever. Colored tablets of bichloride were prescribed to be used as a disinfectant. The druggist dispensed white tablets, using care, however, to mark the bottle "poison." The attendants were highly intelligent and very careful in carrying out

instructions. A bottle of the bichloride solution was made and labeled and kept on the back piazza, while the water for the patient to drink was kept on the front piazza to be more sure of avoiding an accident. However, an unintelligent servant, seeing the water-pitcher empty, and supposing the bichloride solution to be the boiled water used for the patient, filled the pitcher with the solution. Some whiskey was administered, well diluted with the solution (which was especially strong) and a draught of the solution given afterward. The patient soon complained of the metallic taste and in a few minutes vomited. He was taking egg albumen as a part of his nourishment, and the time being near for its administration, by the fortunate suggestion of one of the attendants it was immediately given. Upon our arrival more albumen was administered and the patient had no further trouble. The amount of bichloride ingested must have been at least a grain.

Had the druggist followed the the directions and dispensed colored tablets, the accident would not have occurred.

Reviews and Book Notices.

Index of Medicine. A Manual for the Use of Senior Students and Others. By Seymour Taylor, M.D.. Member of the Royal College of Physicians; Senior Assistant Physician to the West London Hospital. Cloth, octavo, 794 pp. Lea Bros. & Co. Philadelphia, 1894.

This volume was commenced with the view of making it a companion

to Keetley's "Index of Surgery," but such an arrangement involved so many cross-references that it was deemed better to follow the more acceptable grouping by anatomical and physiological relationship, and hence, after a discussion of General Pathology, General Diseases and

Specific Fevers, we find such groups as diseases of the digestive organs; of the respiratory system; of the vascular system; of the ductless glands; of the urinary system; of the nervous system.

The description of each disease must needs be brief in a work which

is more of a compendium than a textbook, and intended chiefly, as the title shows, for the use of senior students preparing for their final examinations. The author has depended, for the most part, upon notes from the lectures of Drs. Peacock, Murchison, Bristowe, Ord and Smith-Shand.

Abstracts.

THE TREATMENT OF CHLOROSIS (*Du Traitement de la Chlorose*). Potain (*Jour. de Medecine de Paris*, April 14, 1895).—The author mentions several varieties of the above affection, dealing first with that form of chlorosis in which the circulatory system appears to be affected, while lesions of organs are rarely present. For this malady various stimulating remedies are indicated, as saline baths and friction, assisted by moderate physical exercise. On the other hand, intellectual work must practically be forbidden. All excitement must be avoided, even marriage not always proving beneficial. Foods should be selected not only with regard to the amount of iron they contain, but also on account of the phosphorus present in them. The author, however, wishes to exclude from the present malady those individuals in whom a waste or loss of phosphates only is responsible for the symptoms. Foods rich in phosphates are milk, eggs, haricots, lentils, etc., though their proper assimilation by the stomach is frequently difficult. On the other

hand, various vegetable products have been recommended, and the author states that the diet-drink prescribed by Hippocrates and physicians before him was merely a decoction of barley, a most valuable bone-producer. During most recent times Robin has advocated glycerophosphates, but no sufficient results have as yet been obtained from their use. Iron also, of course, requires to be given in the form of a drug. Cases in which palpitation is the prominent symptom are then dealt with. Where digitalis may be beneficial, neutral, or even injurious, nerve sedatives, such as bromide of sodium, valerian, or camphor, are likely to produce good results. The author next passes on to what he terms cases of dyspeptic chlorosis. This dyspepsia may be primary, requiring careful dieting and the use of bitters, or secondary, when varieties, such as the painful, mucus, atonic, etc., may be distinguished. The first form, owing to the sensitiveness of the stomach, presents the greatest difficulties in treatment, and therefore the most

soluble preparations, or ferruginous waters, must be administered. In extreme cases recourse may even be had to subcutaneous injections of iron; but the results achieved in this respect with defibrinated blood have not been proved more successful. Where the dyspepsia is atonic alkalies may do harm; alcohol should be avoided, and good results may follow the inhalation of oxygen. Neuro-pathic chlorosis follows, and is subdivided into the atonic and the excitable forms. For the former patients, gymnastics, change of scene, etc.; for the latter, complete rest, sometimes in bed, are advocated. Hydrotherapeutic remedies may also prove beneficial to the latter patients. Difficulties are present in cases dependent upon self-administered drugs, malaria, syphilis and pregnancy. Tuberculosis also may be coexisting or only threatening, in view of an inherited disposition. For the latter patients, arsenic and manganese waters are recommended; for the former, iron. Finally, the author deals with patients also suffering from cardiac affections. When the aortic valves are affected, it must be remembered that chlorosis, though a troublesome complication, does not aggravate the malady. Mitral regurgitation, on the other hand, tends to be exaggerated by a chlorotic condition. In these cases iron not only augments the number of red corpuscles, but, as observed by the author, will lead to a greater capillary resistance, and consequently an improved circulation will result.—*Practitioner*.

SOME REMARKS ON ARTIFICIAL

MINERAL WATERS AND SALINE MIXTURES (*Einige Bemerkungen ueber ku-entstliche Mineralwaesser und Salzin-schungen*.)—O. Leibreich (*Prager med-izinische Wochenschrift*, No. 23, 1895.)

—The author states that years ago he called attention to the circumstance that a difference must exist between the actions of natural and manufactured mineral waters. Liebreich continues that, whereas chemists are now able synthetically to construct various organic compounds, organic mixtures are more difficult to reproduce, as their various constituents are probably not always known. As an example, reference is made to the ash of marine plants, which, during the past century, was in demand for scrofulous and other affections. Subsequently, with the application of chemical tests, soda was believed to be the principal and only constituent, and, when used in place of the ash, was not found to have the same therapeutic value. Only during later years iodine was discovered to be another and the more important constituent. Similarly, until recently a chemist would have reproduced air without being able to add the newly-discovered argon. In the analysis of many mineral waters the quantitative test has often been unable to account for the total bulk present. In some mineral waters substances such as fluoric and formic acid have been discovered in minute quantities whose therapeutic properties, when administered during long periods, we are unacquainted with. Lepine first remarked that some drugs when combined in minute doses are as efficacious as a single one administered in

the usual quantity. Similarly, a special virtue may exist in mineral waters, though many constituents are so sparingly represented. Nevertheless, a large field remains for the reproduction of mineral waters; but, in the author's opinion, it is necessary to check the opinion gaining ground with many that we are already able to supplant our mineral waters by means of artificial productions.—*Ibid.*

PUERPERAL INSANITY.—Dr. Dagonet (*Progres Medical*, April 7, 1894).—The puerperal condition, properly speaking, refers only to the functional and organic modifications which take place in women during and after parturition, before the return of the menses, or the physiological establishment of lactation. But from the point of view of puerperal insanity this period may be divided into three periods: (1) gestation; (2) puerperal condition proper; (3) lactation.

The following statistics show the relative frequency of psychosis in each of these periods: gestation, 3.1 in 100; puerperal condition proper, 9.2 in 100; lactation, 3.6 in 100. According to Marce, insanity caused by pregnancy generally develops about the end of the fourth month, and increases progressively. Melancholia is the most frequent form. Schmidt gives the following proportions: 52.9 in 100, melancholia; 31.3 in 100, mania; 10.3 in 100, systematized delirium; 5.8 in 100, general paralytic dementia. Marce observes that labor seldom relieves this form of mental disease; on the contrary, the symptoms are generally aggra-

vated, and melancholia often assumes the form of more or less violent mania. Abortion, sometimes recommended as a curative measure, should be strictly forbidden. Gestation, with these patients, is usually normal, and abortion seldom occurs spontaneously. The opinion advanced by some authors that pregnancy exerts a beneficial influence upon the insanity already established, is not sustained by statistics. Esquirol believes that marriage and labor generally stimulate the disease. When psychosis appears at an early period prognosis is more favorable than when it occurs towards the end of gestation, but it generally persists for several months, and relapses may be expected in subsequent pregnancies. The causes of puerperal insanity proper, that is, insanity which develops during the period following labor before the organs of generation have resumed their normal functions, are divided by Campbell-Clark into predisposing causes and producing causes. In the first category, hereditary predisposition is the most important, as it exists in 56 p. c. of these cases. The complicated influences affecting a first pregnancy are next in order. Nearly half the patients suffering from this form of psychosis are primiparæ. Among producing causes infection occupies the first rank, infection of the uterus or of other organs. Campbell-Clark reports 70 of 100 cases caused by infection; 66 by infection of the uterus, 4 of the kidneys. More than half these patients were under the influence of intense moral emotions; and we realize the importance of this influence when we con-

sider the large number of women who suffer from puerperal infection. Dr. Idanof gives the proportion as 8 or 9 p. c., and the comparative variety of puerperal insanity. The disease usually appears about the fourth or fifth day. Irritability, insomnia, headache, agitation, diminished secretion of milk, are premonitory symptoms. Fever may or may not be present, but the head is always hot. Sometimes the disease assumes a fatal form, when the tongue becomes dry and furred, the secretions cease abruptly, and the patient falls into a comatose state, which soon ends in death. Puerperal insanity proper assumes the most diverse forms: mania in 47.8 p. c.; melancholia in 37.9 p. c.; systematized delirium in 5.8 p. c.; acute dementia in 5.5 p. c. Prognosis is favorable in most cases, more favorable in mania than in melancholia. Patients suffering from insanity after prolonged lactation usually present symptoms of extreme exhaustion. Prognosis is not unfavorable, but more grave than in puerperal insanity proper. Therapeutic indications are the same in all kinds of puerperal insanity. Treatment consists in the removal of all exciting causes, a tonic regime, mild purgatives, injections of chloral hydrate, and other soothing influences. —*Univ. Med. Mag.*

THE FINAL RESULTS IN RADICAL OPERATIONS FOR REDUCIBLE HERNIÆ. —Beresowsky (*Deut. Zeitschr. für Chir.*), after studying the various methods and describing the one he now favors, concludes his valuable study with the following summary:

1. The indications for operation which during the past year (1892-93) have been held in the Berne Clinic, are confirmed by the last 220 operations. The wish of the patient may be considered a sufficient indication, since the mortality is nil and the percentage of relapses is very slight.

2. The size and the age of the herniæ have an influence on the period of recovery, and in most cases with regard also to recurrence.

3. The age of the patient, i. e., the laxness of the abdominal walls, influences in no manner the result of the operation or the rapidity of the healing; it has a slightly greater influence upon the prognosis as regards recurrence. In case of operation for inguinal hernia under the above conditions a relapse of the original hernia is not so frequently observed as a return in some other locality which has no relation to the former area, and is apparently due entirely to the relaxation of the abdominal parietes.

4. Thanks to the good course of the operation and wounds, the operation for oblique inguinal hernia can be performed upon children at an early age.

5. The best method for performing the radical cure for oblique inguinal hernia, the author considers, is the last manifestation of Kocher's method, since, in the first place, it produces not less certain results, as far as recurrence is concerned, than the already best known methods (Macewen, Bassini); and, secondly, since this method, on account of the simplicity of its technique and the harmlessness to the patient; if there should be any

accident in the process of healing, has decided advantages.

6. In order to prevent recurrences it is very necessary during the operation to observe the condition of the spermatic veins, and in case a varicocele is ever produced, it should be operated upon as speedily and thoroughly as possible.

7. The wearing of a truss after a properly performed operation, followed by primary union, is entirely unnecessary, since the majority of the patients, laborers, sent out from the clinic remain free from relapse without wearing any form of truss or protection over the wound.—*American Jour. Med. Sci.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From July 25th, 1895, to August 7th, 1895.

Woodruff, Major Ezra, Surgeon, is granted leave of absence for one month—Fort Keogh, Montana.

Lippitt, 1st Lieut. Wm. F., Jr., Assistant Surgeon, is granted leave of absence for two months—Fort Leavenworth, Kan.

Winne, Major C. K., Surgeon, U. S. A. The leave of absence for seven days granted Major C. K. Winne, Surgeon, U. S. A., is hereby extended twenty-three days.

Carter, Capt. W. Fitzhugh, Assistant Surgeon U. S. A., is granted leave of absence for one month.

Powell, Capt. Junius L., Assistant Surgeon, U. S. A., is granted leave of absence for one month, with permission to apply for an extension of one month.

Porter, 1st Lieut. Alex. S., Assistant

Surgeon, U. S. A. The extension of leave of absence, on account of sickness, granted 1st Lieutenant Alexander S. Porter, Assistant Surgeon, U. S. A., is further extended two months.

THE NAVY.

For the week ending August 10th, 1895.

Aug. 6.—Surgeon C. G. Herndon, detached from Bureau of Medicine and Surgery to duty on the "Lancaster." P. A. Surgeon, P. C. Braithwaite, detached from Naval Hospital, Norfolk, Va., to duty on the "Lancaster."

Aug. 7.—P. A. Surgeon, E. R. Stitt, detached from special duty and ordered to the "New York." P. A. Surgeon, J. F. Urie, detached from the "New York" and granted two month's leave.

Aug. 9.—P. A. Surgeon, I. W. Kite, detached from the Monitors to duty on the "Franklin."

P. A. Surgeon, L. L. Young detached from the "Franklin" to duty at Naval Hospital, Norfolk, Va.

ABSCESS OF THE NASAL SEPTUM.—Dr. Joseph S. Gibb (*Codex Medicus Philadelphia*, February, 1895) reports two cases of septal abscess, one acute and the other chronic, in which some

injury was believed to be the exciting cause, although there was no such history. These are the only two cases seen at the Episcopal Hospital out of 2,000 cases of nasal disease.—*Ex.*

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

We note the removal of Dr. G. J. Atkins from High Point to Jackson Hill, N. C. day and Thursday, September 3d, 4th and 5th, 1895.

It is with much sorrow we announce the death of Mrs. Dr. Richard H. Lewis, of Raleigh, N. C.

The twenty-sixth annual session of the Medical Society of Virginia will be convened in Wytheville, September 3d, 1895. Dr. Landon B. Edwards, Secretary, Richmond, Va.

There is a serious break-out of small-pox at Eagle Pass, Texas. The camp is in charge of the State health authorities, with the assistance of the U. S. Marine Hospital Service.

The following is the health report of Wilmington for July, 1895 :

	Whites.	Col.	Total.
Population.....	9,000	13,000	22,000
Total deaths.....	17	31	48
Annual death rate represented.....	22.7	28.6	26.1

The seventh annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, will be held in Chattanooga, Tuesday, Wednesday and Thursday, October 8, 9, and 10.

The American Electro-Therapeutic Association will hold its fifth annual meeting at the College of Physicians and Surgeons of Ontario," in Toronto, Canada, on Tuesday, Wednes-

The Board of Medical Examiners of North Carolina will hold its summer session at Wrightsville, beginning August 26th.

The Trustees of the William F. Jenks Memorial Fund announce that the William F. Jenks memorial prize of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, has been awarded to Dr. A. Brothers, 162 Madison Street, New York, for the best essay on "Infant Mortality During Labor. and Its Prevention."

The Prize Committee also reports as highly meritorious the essay on the same subject bearing the motto, "Vade Mecum."

The writers of the unsuccessful essays can have them returned to any address they may name, by sending it and the motto which distinguished the essay to the Chairman of the Prize Committee, Horace Y. Evans, M.D., College of Physicians, Philadelphia, Pa.

ARTIFICIAL CAFFEIN.—Another triumph for the laboratory has just been recorded in the synthetic manufacture of caffein. This is an important advance, not only in itself, but also in the suggestion of future progress.

The process requires as yet such an elaborate series of chemic operations as to make the cost of the product considerably above that of natural caffein. But only a mere simplification of the process is required to remedy this, and that is sure to come with perseverance and practice. This field has been a most tempting but barren one to the chemist for generations past. For a long time it seemed absolutely hopeless to attempt to rival protoplasm in its transforming and constructive powers. When at last the synthesis of urea was achieved, some fifteen years ago, it was hailed as a great triumph. Slowly but

painfully one product after another has been achieved, but so far these have been the results of excretory metabolism. A few months ago, however, the formation from inorganic materials of something seemingly identical with albumin was announced, and now such a complex and active body as caffein has been reached. No less authority than M. Bertillon is most sanguine about the prospect, and declares that it is only a question of time—and a short time at that—when we shall be able to construct all of our food-materials directly out of the elements without the aid of either plant or animal.—*Medical News.*

Reading Notices.

For a number of years it was our privilege to be able to give almost exclusive attention to the study of physiology. Nothing can be more fascinating either to pupil or teacher. During all this time, and even up to the present day, we had to believe that "The principal object of the saliva is to moisten the food, and thus aid mastication and deglutition." And yet we had to face the fact that an enormous quantity of saliva was secreted every twenty-four hours. It appeared almost like a waste of the forces of nature. We had to believe that the moment this saliva reached the stomach it became inoperative. But now all this is about to be changed. Although Freirichs came to the conclusion a number of years ago that salivary digestion continued in the stomach, yet his work was practically lost sight of. Now, Dr. J. H. Kellogg, of the Battle Creek Sanitarium, has just published the report of some extensive experiments

in his Laboratory of Hygiene, on starch digestion. Dr. Kellogg examined the contents of the stomach, after a test meal, in 4,875 cases. In 669 of these cases he found the starch had been completely converted into sugar. Only in 1.8 p. c. of the cases did he find there was little or no conversion of the starch. This certainly must be accepted as conclusive, and hereafter we must teach that the digestion of starch takes place in the stomach by the aid of the saliva ferments. Clinically this will be of great value, and must result in quite a number of changes in our ideas of diet.

It is only within a few weeks that a chemist of Brooklyn, New York, Professor E. H. Bartley, published an article in the New York Medical Journal setting forth the dangers of having digested starch in the stomach. Our readers may recall the fact that a number of years ago a committee on American Chemists were asked to report upon the danger of taking a

pre-digested starch into the stomach. Glucose was becoming such a generally distributed article, and was so largely used in the manufacture of confectionery that this committee was asked to report upon its effects on the system. The report was both exhaustive and conclusive that no deleterious effects would follow its use, even in large quantities. But Professor Bartley has recently taken exception to this report. This is a very important question, for it is a fact that to-day the best candies in the world contain a large amount of glucose; while the most popular beer on the market has recently been shown to contain a larger proportion of glucose than any other brewed in this country.

Professor Bartley speaks against cooked fruits, jellies, preserves and fruit pies; because, he says, the cane-sugar is changed into glucose by heating it with the acid fruits. As is well-known, "prolonged boiling" with an acid is necessary to make this change; while it is a practical fact that the housewife only brings her pears and peaches to a boil. Professor Bartley further declares that the reason why some persons can eat raw apples "without stint and without after-distress," and yet "cannot eat apple pie without distressing after-effects," is because the latter contains this inverted sugar! This is almost ludicrous. It occurs to us there is more difference than this between ripe, raw apples and the average apple pie with its historic crust!

But this article is written with the view of showing how easily any number of theories may be overthrown when all the facts are made known. Professor Bartley says that digested starch is absorbed too quickly while in the stomach, and, therefore, "may prove too great a task on the liver,"

and "the blood may be overcharged with dextrose." The Professor reasons that when milk-sugar or cane-sugar is taken, it is digested below the stomach, and there more slowly absorbed. The whole drift of his article is to frighten those who take a pre-digested starch, for fear of causing diabetes!

In the light of the recent investigations of Dr. Kellogg, the absurdity of any such view is at once apparent. We now know that nature herself is digesting our starchy foods in the stomach, and that if these digested starches, or if this glucose, could in any way cause diabetes, we would ere this have been a race of diabetics.

For a long time there has been a growing sentiment throughout Germany that diabetes has not been properly treated. Hirschfeld says he believes that diabetic coma is favored by the exclusion of carbohydrates in the diet. Schmitz allows his diabetic patients a small quantity of albumen, while he orders the free use of food containing starch, and fat in large amount. Grube impregnates the system with the carbohydrates. Williamston, of Manchester, says that home-made bread is much better than especially prepared diabetic bread. A number of American physicians are following out this line of treatment with better results than they have had heretofore.

In the light of all this, we must conclude that saliva continues its action on starchy foods in the stomach until nearly, if not all, the starch is changed into glucose; that glucose is simply a normal product of digestion and no more injurious than a digested proteid; and that the treatment of diabetes is bound to undergo a marked change in the near future. —Editorial in *The National Medical Review*.

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Original Communications.

THE RATIONAL TREATMENT OF PUERPERAL ECLAMPSIA.

By T. S. McMULLAN, Hertford, N. C.

The greatest problems perplexing the minds of medical scientists to-day are the etiologies of diseases. In olden times, before the advent of Galen upon the medical field, when the Empiric School, led by Philinus and Serapion and later by Apollonius and Glaucias and Zenxis, pointed out the paths of treatment for maladies, the people, medical and lay, were content to leave alone all theories and to accept experience, and that alone, as the only basis upon which to build a remedial structure. But the day is now, and it has been dawning since Hippocrates uttered his famous aphorism, "Experience is fallacious and judgment difficult," when it is necessary to have a clear conception of the causes of diseases; and the rational physician is one who seeks to find out the occult reason of abnormal conditions and to treat them upon the principles involved in their causation. The old philosophers, too, more subtle than their empiric contemporaries, were soon to learn that medicine was a reasonable art; for Plato, in his Georgias, is heard to say, "And I said of medicine that this is an art which considers the constitution of the patient, and has principles of action and reasons in each case." There are some relics of empiricism in the world yet, but one by one the reasons for the actions of all drugs are being made known, and to-day the term is synonymous with quackery.

The science of medicine has to do with solving the problems of etiology, pathology and symptomatology; but the advances in the science would be of little benefit to mankind if the physician had not found their application in the art; for the treatment and cure of disease is the great endeavor of us all, and to secure the most effective weapons we must, as nearly as we can, have an acquaintance with the enemy.

*Read before the North Carolina Medical Society, May 15, 1895.

The discussion of the rational treatment of any ailment presupposes a knowledge of its cause or causes. My object is to bring to your attention the treatment for this direful disease, which, to my mind, more nearly than any other, is antagonistic to the operation of the cause. It is not necessary to consume your time in bringing to your mind old and obsolete theories; it is only needful to call your attention to the generally accredited opinion to-day as to its etiology, in as brief a manner as possible, so that you may see that, viewing it as is set forth in this paper, the treatment prescribed is not without its reasonableness.

In 1842 Dr. Lever, of England, made known some observations he had made upon a series of twelve cases, in which he claimed a causal relation between albuminuria and the convulsions of child-bed; since that time this has been accepted as true by almost the entire medical world; one of the earliest and most vigorous opponents being Seyfert, of Prague, seconded by his school, who, because albumen was not always found in the urine of women having eclamptic seizures, and further, because some cases of marked albuminuria were found, which went to delivery with no symptoms of uræmia, denied the doctrine enunciated by Lever, Garrod and Rees, and refused to believe in the similarity between puerperal and uræmic convulsions, as demonstrated by Braun. But that renal insufficiency, causing a retention of excrementitious matters in the blood, which, by their action upon the vaso-motor centres, by producing arterial spasm, cause an anæmia of the brain, and which anæmia, by increasing the excitability, acts as a stimulant to the convulsive centre in the medulla oblongata, is the cause of puerperal eclampsia, I take it in the light of modern investigation, none of you will deny. For a long time it has been known that in eclampsia the brain is anæmic. How this state is brought about was for a considerable period a vexed question: The old Traube-Rosensteine doctrine, that it was caused by increased arterial pressure, consequent upon the hydræmic state of the blood, has given place to the more modern, more reasonable and more generally accepted views of Dr. McDonald, published in 1878, that the anæmia is caused by, and is due to a spasm of the arterioles, caused by the direct irritation of the vaso-motor centres by the toxins of the excrementitious matters, be they urea or carbonate of ammonia, or whatsoever. Dr. McDonald further held that the great excitability and stimulation of the convulsive centres, the direct cause of the outbreak, were brought about by the anæmic condition of the brain; for it has been shown in the physiological laboratory, by Rausmul and others, that convulsive seizures will be brought on by an artificially produced anæmia of the cerebro-spinal system. Upon this hypothesis, therefore, I shall discuss the treatment. It would not be proper, however, for me to fail to state that occasionally there is seen, at the bedside of laboring women, convulsions of a mild type, which have in them an element of hysteria and which are brought

about by reflex stimulation of the convulsive centre, through some irritation at the periphery; "nor would it be reasonable to exclude from the causes of convulsions in the puerperal state causes which might produce convulsions in the non-puerperal state." (Tyson.)

Now, whether this insufficiency of kidney action be due to mechanical obstruction, caused by pressure of the child upon the uterus or upon the renal veins, or whether it be due to some altered state of the blood, or whether to some organic change in the nephritic structure itself, I shall not argue. It only interests us here to know that uræmia does give rise to eclampsia.

With the symptoms and prognosis I shall have nothing to do—the scope of this paper is only to present a treatment in consonance with the propositions laid down as to the causative factors in this altered condition of the human system. Before referring to the remedial measures to be used during the attack, I shall notice in a very cursory manner the care with which every woman should be watched who shows during her pregnancy any evidences of beginning renal inactivity. This part of the subject is, I know, more or less foreign to my aim, my primary object being only to deal with the treatment of the seizures; but it cannot be amiss for all of us to have our minds frequently turned toward the great weight of responsibility thrust upon us, when we assume the care of a pregnant woman, and if, by early and systematic examinations of the urine, whereby we may detect the first evidences of approaching evil, and if, by notice taken of the general appearance of our patient, carefully noting all symptoms, subjective and objective, we can, by the proper use of depletives and sedatives, conduct our frail barque, with its precious freight, into a haven of safety, we can consider that we have attained the highest aim in medicine—the prevention of disease. Nothing in medicine should more command the best talent and endeavor of us all than to try to shield the frailer portion of the human family from this direful calamity. To prevent eclampsia is oftentimes more easy than to cure it, and it has been most aptly said—

"A little fire is quickly trodden out,
Which, being suffered, rivers cannot quench."

In noticing the rational treatment of puerperal convulsions, I shall consider first the advisability of bringing about artificial deliveries. To my mind, before the period of viability of the child, there are two courses open to us—after that period one. If, in a given case of convulsive seizures before the seventh month, under judicious treatment the fits were controlled, and by the employment of such remedies as are usual in this condition, and with the proper regulation of the diet, the albuminuria became less, the œdema disappeared and all the symptoms improved, and, with the arterial tension lower and renal secretion more profuse, I should hesitate to bring

about a premature birth; for it must be remembered that we have no right, human or divine, to sacrifice the life of an unborn child, unless the condition of the mother imperatively demands it; but if, after the use of sedatives, diuretics, diaphoretics, cathartics, depressants and depletives the œdema become greater, the kidney action less and the cerebral symptoms were all more grave, the pregnancy should be terminated at once. I have not once a doubt but that the removal of the fœtus would be, in every case, more favorable to the woman; but, as before remarked, it is the consideration for the life of the child, and that alone, that should deter us; for, notwithstanding the high mortality rate of infants in these complex labors, some are born alive. After the period at which, ordinarily, a child will live, the time limit of expectant treatment has passed. The *sine qua non*, then, is immediate and rapid delivery. This is my practice, and I want no better warrant for my action than the dictum of modern medical teaching, the first principle of which, in the treatment of any malady, is "the removal of the cause." The foregoing lays down what my views are in regard to this phase of the subject, and what I submit is the opinion of the best obstetric teaching.

The mention of any drug has been omitted heretofore, because I shall prefer taking them up in what this writer believes to be the true order of their importance; for, so far as the actions of drugs are concerned, the *modus operandi* of each is the same in all of the different states mentioned above.

The rational treatment of any disease is that treatment which is based upon a correct interpretation of the pathological conditions met with and which more nearly than any other opposes itself to the abnormal impressions brought about by that condition. So that, in formulating a remarkable treatment of the trouble under consideration, I shall beg of you to subdue for a short while your impatience while I reiterate what, in the light of modern medical teaching, the abnormal conditions found in eclampsia are. We have a deficiency of the functional activity of the kidneys, which causes to be retained in the circulation certain effete products that, in a normally acting body, are cast off. As the result of the direct stimulation of the vaso-motor centres, by the toxins of this excrementitious matter, there is brought about a spasm of the arterioles, causing high arterial and nervous tension and producing, in addition, an anæmic condition of the brain; this anæmia, by greatly increasing the excitability of the convulsive centre, together with the high arterial pressure, is the direct cause of what is known, clinically, as puerperal eclampsia, or, perhaps more scientifically speaking, uræmic convulsions.

Assuming, then, as a fixed fact, the reasons assigned above to be the true causes of this disease, what drug have we that more nearly than any other obtunds the impressions, direct and indirect, made upon their nerve centres by the circulating poisons? The one more nearly than any other answer-

ing this description is, I think, morphia, morphia sulphate, administered subcutaneously. Remember that we have to combat the action of the anæmic poison on the vaso-motor centres, stimulating them and causing high arterial tension and consequently anæmia of the convulsive centre, both of which are factors in the production of the seizures. All of us know the characteristic physiological actions of this drug; how it causes congestion of the cerebral structure; how it blinds the sensibility of the sensory cells; its action on the heart and skin. What is the effect, then, of morphia in these cases? We have excited nerve centres—morphia allays excitability; we have causing this irritability anæmia of the brain structure—morphia relieves this state; we have causing this anæmia a spasm of the vaso-motor system, high arterial tension and rapid nervous heart-beat—morphia relaxes the spasm, lowers the arterial pressure and soothes the heart-action. To me, did it only possess diuretic properties (which some, notably the late Professor Loomis, claimed for it) it would seem almost an ideal remedy. And to the reasons given above for its employment should be added its ease of administration and its facility of being rapidly absorbed; I have often thought, in view of the excellent clinical results which I have seen follow its use, that the sulphate of morphia, in addition to its many other valuable properties as a remedy, *par excellence* in this disease, added that of being a direct chemical antidote to the excrementitious products in the circulating blood.

Gentlemen, I am aware that I am advocating a new remedy, but I am warm in its praise because, not only from a theoretical standpoint does it show itself to be the most direct antagonist of uræmic outbursts which we have, but because in my short experience in the practice of medicine I have seen results follow the use of morphia which refused the sweet solicitation of other remedies. With reference to the dose of this drug to be employed, the only rule is the one formulated in each individual case—only by the most acute observation of the effect of each dose upon the patient can the medical attendant satisfy himself as to the proper amounts to be given. I believe in large doses—not that the beginning be made of large amounts, but at first tentatively, with a keen perception of its power, we increase, if needful, each succeeding dose until warning be given that its further exhibition is useless and dangerous. While prudence would dictate that not more than one-quarter of a grain should be given at the commencement of the fits, I do not think that it would be hazardous to administer *one* grain at one hypodermatic injection, if the recurrence of the convulsions and the general condition of the patient demanded its continued use; for in these cases there is a tolerance for opiates which renders small doses more inert and large doses less effective than in most any other disease; and it must appear that in the irritation of the nerve centres by the uræmic poison there is an analogy to that terrible stimulation of the cerebral cells produced by severe pain; so that, just as in cases where we meet with great agony there is a peculiar tolerance

for morphia, just so in uræmic convulsions we find the same marked insusceptibility to its use.

Venesection.—Until thirty or forty years ago, for a physician to visit a case of eclamptic seizures and not use the lancet, would be looked upon as a gross violation of the rules governing medical practice at that day. Later, by about twenty or twenty-five years, it would have been regarded as almost criminal to bleed. The rebound was too great, and no doubt but that as many lives have been sacrificed by its non-employment as were ever victims of the too vigorous use of the knife. Fifteen years since Dr. Barker plead for its restoration—not advocating its employment in all cases; but when he found a patient with *very* high arterial pressure and of very full habit, he concluded that venesection not only did good by lowering blood-pressure, by relieving, in some degree, the load upon the kidneys and by removing, to some extent, the irritation of the nervous centres, but that its quickness of execution made it almost invaluable in such cases as a preliminary treatment. It renders the absorption of drugs more rapid and makes the sufferer more susceptible to the influence of other remedies. I do not think venesection useful, or even rational, in all cases. Only those women who are plethoric and who exhibit unusual arterial tension should be, in my opinion, subjected to this spoliative measure. Incidentally I would like to remark that, during pregnancy at any time when such symptoms are evidenced as would lead one to suspect some functional derangement of the kidneys, in such cases as those noted above as calling for venesection, my habit has been to use the lancet. The amount of blood taken is to be governed by the number and force of the cardiac pulsations.

Veratrum Viride.—As an arterial depressant veratrum viride has been highly extolled as a rational remedy in these cases. While my individual experience with this drug has been small, yet the few times I have employed it have set at rest any doubts I may have had as to its efficacy and have led me to believe that the claims made for it rest upon a substantial basis. It reduces the number and force of the heart-beats and necessarily lowers the arterial pressure—one of the chief ends to be attained. In all cases in which the powers of life are so sapped as to make the employment of the lancet doubtful, in the treatment of all enfeebled and high-tensioned women, upon whom the perils of maternity must come and upon whom there is danger in resorting to too vigorous depletion, the employment of this drug finds its true field, and the results will show that the reasons for its employment are based upon true conceptions of the causes. Veratrum should be given in large doses, beginning with not less than fifteen or twenty minims and repeated every half hour until the heart-beats number not less than fifty or sixty per minute.

Chloral, etc.—I shall only mention the use of chloroform, chloral hydrate, bromide and the many other sedatives and antispasmodics advocated and in

use. Their generic names will give you the reasons for their employment. Chloral and potassium bromide, by the rectum, are no doubt of value, but their difficulty of administration and slowness of action make them more subsidiary to other measures than to be classed among our most potent weapons. For chloroform I have no use in puerperal eclampsia. The only time it has been used in my practice has left upon my memory a painful recollection, and I am free to confess that the contemplation of the use of this drug is not productive of the most fascinating reflections.

Mr. President, the employment of morphia and venesection in the class of cases noted above as calling for the lancet, and morphia and veratrum viride in those indicated as calling for less vigorous depression, together with the use of the subsidiary sedatives, chloral, bromide, valerian, etc., make up what I conceive to be the sedative treatment of uræmic fits. Add to these things carthartics for their depleting effects, and further because we desire the vicarious action of the bowels, diaphoretics, so that the skin may eliminate, as far as possible, the retained poisons; diuretics to assist the kidneys in their labor to rid the system, and we have made up what, to my mind, appears to be the *rational* treatment of puerperal eclampsia. It is not my purpose to prescribe an especial cathartic, or diuretic, or diaphoretic. I will only mention that my preference is for the salines during pregnancy if an attack is threatened, and for calomel, in minute doses, in the beginning of an attack—this last for the reason that, as you know, it combines valuable diuretic properties with its action as a cathartic, and its ease of administration is a further consideration for its use. Of diaphoretics, pilocarpine presents itself as the most convenient and efficacious, and, in conjunction with the hypodermatic use of this agent, the hot pack is of great service in producing an effective action of the skin, and with reference to diuretics, my habit has been to give the acetate of potassium conjointly with such others as each peculiar case demanded. I am not, however, insistent upon the above-mentioned drugs, since all of us have our own preferences with reference to what drugs are best—the only rule is to meet the indications by what you consider the most effective therapeusis. While the first indication is to establish the functional activity of the emunctories in these cases (for the loss of this is the fountain and origin of all the evil), we all know that our first endeavors, upon being called to such a case, are directed toward stopping and preventing the outbreaks. The sedative part of the treatment is what was in my mind when this subject was first contemplated and upon which I have, for the most part, dwelt.

The rationale of the other part, or what might be called the constitutional treatment, is so plain that it needs no elaboration; hence it has merely been mentioned; not but that its importance is as great, but because its conception is easier.

In concluding this paper I shall apologize for the many prolixities and

repetitions in it. As an excuse, my only plea is my great desire to make each proposition relating to treatment find its base upon the propositions laid down as to etiology. I have offered no statistics; I have brought forward no clinical proof that my statements with reference to treatment are true; but if you admit the causes, you will be forced to admit the reasonableness of the remedies presented. With the increase in zeal to lessen the sum of human misery, with the advances in instruments of observation and precision, and as freer intercourse is had between scientists of different nations, it may be that in the light of further investigation some other causes than the ones now assigned may be given and accepted as the producers of puerperal eclampsia, and our treatments may become as obsolete as the ideas of old empirics are to us. But in the light which we have we must be guided by the views of those eminently qualified to teach us concerning these things, and, believing them, we must so use our judgment as to erect upon these well-grounded theories treatments which have in them soundness of reason.

DISCUSSION.

Dr. McDowell stated briefly a case he had some years ago. It was a case of insufficiency of kidney action in pregnancy. It did not result in eclampsia, from the fact that voluntary abortion came on. One of the interesting features was the early period in pregnancy in which the symptoms made their appearance. In this case the symptoms were prominent as early as the third month. The flow of urine was absolutely nil. The patient herself did not know of the dangerous condition she was in. His attention was called to it casually. He went to see her and found her suffering from almost absolute amanosis. She could tell when a large body passed between her and the light, but was not able to see her mother or husband and recognize them, and was yet able to attend to her duties. The symptoms became more and more pronounced and she continued in that condition for several weeks. Occasionally she had an exacerbation of symptoms, which were frequently relieved by a hot bath. She continued that way until she voluntarily aborted about the close of the fourth month. Since that time she has a well-developed case of Bright's disease. He asked if any other members had noticed permanent Bright's disease in pregnancy? The urine being examined closely, was found to contain nearly 40 p. c. albumen. Now, at intervals of a week or ten days, the urine gives 12 p. c. of albumen. She is now up and attending to her duties. He thought amaurosis a symptom of real insufficiency in pregnancy, and that Bright's disease is a result of that condition, but his experience was limited.

Dr. Faison had listened to the paper with a great deal of pleasure, as he had had some experience in that line. About ten years ago he was called to see a woman in a trance: It was at Mt. Olive. She was a large colored woman, and had during the day twenty-three convulsions. A few days be-

fore he had read in a *Medical Record* an article of a gentleman in Pennsylvania advocating large doses of morphine. When he found this woman it seemed there was no hope; labor had progressed very slowly. With a great deal of fear he gave the woman two grains of sulphate of morphine, at one dose, hypodermically. He felt that if there was any hope in the world he would get it out of that article. The woman had no more convulsions, and as soon as she went under the influence of the morphine he dilated the cervix, turned the child and delivered it. The next morning, on going back, the woman could not be aroused by anything he could do, but her heart was beating, and he did not give her up. In the afternoon, when he went back, her husband and children met him smiling and laughing. She was conscious and bright and went on to a rapid recovery without fever and without trouble. That was the largest dose of morphine he had ever given, and he did not think he would have the courage to give it again, still he was glad that he gave it that time.

About two weeks ago he was called to see a woman suffering from anæmia. He got a little of the urine and took it home and the greater portion of it solidified immediately. He went to work to get her kidneys to act. She never passed four ounces of urine in twenty-four hours during the whole two weeks, with the most heroic treatment. The brain was very anæmic. He tried a solution of nitro-glycerine, thinking to dilate the vessels and increase the flow of blood in the brain. The pain in her head was very intense. On the next day, at 9 o'clock a. m., she went completely blind, which condition lasted six hours during the day, and in the afternoon she began to see. That state of affairs existed for two weeks. During the week there was no increase in the action of the kidneys and no diminution of the albumen. On Thursday night he was called to her, she being in labor. She was having rather intense pain, the cervix was dilated and he ruptured the sac in order to hasten the labor. He had never seen so much water in a sac in his life before. The child weighed about three and a half pounds. She delivered very rapidly and has had no bad symptoms. Her blindness came on the next morning at 9 o'clock. She was blind every day and he had left her blind. Her kidneys had begun to act and the urine had gotten to the amount of a quart a day. Her neck was so enlarged that it was filled up from the ear to the shoulder. Her appetite came on. Two years ago she was confined and went through this labor and trouble alone. She was blind then and was blind three months after the confinement.

Dr. Noble reported the following case: He was called one morning to see such a case as Dr. Faison had described. He saw a strong, healthy woman sitting in the corner and she said: "I am as well as I ever was in my life." He was about ten feet from her and she could not see him. He took some of her urine home. In about half an hour she began having convulsions and he was sent for about sunset. He went into the room and gave her a

dose of morphine, how much he could not tell. He poured it from his bottle into a spoon, with a little water, and gave her the spoonfull. It was probably about a grain and a half. The next morning she was up and sitting in the corner when he called, but could not see anything. He put her on the treatment of acetate of potash for thirty days. He reached the house just in time for the child to be born. She had had, probably, two children before, and each time had had convulsions and the child died. She had had two since and they all came to the full term, and she had had no convulsions since.

Dr. Tayloe considered Dr. McMullan's paper as entirely covering the ground in every respect, and he knew of no remedy that could be used with better effect.

Selected Papers.

SOME SUGGESTIONS IN RECTAL SURGERY.

BY J. M. MATHEWS, M.D., Professor of Surgery and Diseases of the
Rectum, Kentucky School of Medicine, Louisville, Ky.

(Read before the Niagara University Alumni,
Buffalo, N. Y., May 16, 1895.)

When the invitation came to me to read a paper before this Association, I must confess that there seemed to be no time at my disposal. But, having been in attendance at the American Medical Association last week in Baltimore, I extended my trip to the East in order to be with you to-night. I have thought, in selecting a subject for the occasion, that it was the proper thing for the shoemaker to stick to his last, so I propose to take some of your valuable time in discussing—

Some Points in Rectal Surgery.—Eighteen years ago I first conceived the idea, and after much hard work put it into execution, of making diseases of the rectum a specialty. At that time there was no specialty either in this country or in Europe. Since then some one or more distinguished surgeons in every large city of the Union have adopted the specialty. This, of course, is gratifying to me. I shall reserve the right in this paper to express an individual opinion upon all subjects touched upon, and in differing from others I mean no disrespect, and do not wish to appear either dogmatic or egotistical. I shall refer in the paper only to those points that are mooted.

Hemorrhoids.—Authors who have written specially on diseases of the rectum have divided hemorrhoids into two main classes: First, external,

second, internal, and then have subdivided the classification into varieties of two external and three of internal. Of the first, a tag of skin or a thrombotic tumor go to make up this class. Of the second variety, such terms as arterial, venous and capillary are used to express them. Now, in truth, it makes very little difference with the operator whether piles are classed at all. For convenience sake it would be much better to say, with Mr. Erichsen, "all external piles should be cut off, and all internal piles tied." In my opinion the universal advice given, to let out the clot of a thrombotic pile, is non-surgical. After such an incision is made it takes the inflamed tissue which is left just as long to disappear by reabsorption as it would have taken nature to absorb the clot. In a word, then, all external piles should be cut off. A clean, even base is left, and the patient is well in one-half the time. when compared to the other plan.

Internal Piles.—It matters very little with the operator whether internal piles are venous, arterial or capillary in nature. To diagnosticate such would not alter the operation in the least. Again, the classification is erroneous, for the reason that no hemorrhoid is made up exclusively of arteries, veins or capillaries. As to the method of ligating piles, I object to the plan usually named as that of Mr. Allingham, but is the one proposed by Mr. Salmon, namely, that the cut should be in the sulcus, or white line, and carried down to the base of the pile, and after ligating, that but a small portion of the pile should be cut off. If superfluous skin exists around the anus, it is much better to include it all in the incision made and by the ligature used. If such mass is transfixed and tied tightly, it should be cut off in such a manner as to leave but a small base to slough. The idea that a contraction takes place after such an operation is chimerical, and even if it did, one dilatation with the speculum would overcome it. After operating upon over two thousand patients for piles, I have never encountered contraction but in two cases, and they were relieved in the manner described. I have said that all internal piles should be tied, because my experience has taught me that, compared with all other methods, the ligature is the simplest of execution, freest of danger and most radical in its results.

Fistula in Ano.—This term does not in fact bear out the significance intended. Very few fistulæ in this region relate to the anus at all. Many of them communicate with the rectum, and some fistulæ in this neighborhood neither affect the anus nor rectum. A buttock may be extensively invaded, the perineum destroyed, or a sinus run high up the back, when it will not be necessary to follow the time-honored injunction to push a director through the sinus into the rectum and divide all the tissues thereon, including the sphincter muscle or muscles. Indeed, such a procedure would be out of the question in many of these cases. From time immemorial anal fistulæ have been divided into three varieties, namely, external, internal and complete. Great stress is laid upon the importance of finding the internal opening of a

fistula before operating. So far has this fallacy gone, that I have known surgeons to refuse to operate for fistula in ano because the internal opening could not be found. This is sheer nonsense. After the main cut is made for fistula, how easy it is to trace the channel to an internal opening, if one exists. I desire to say in this connection that no idea whatever can be conveyed to the surgeon by the appearance of the external opening of a fistula. Some of the most serious cases that I have ever operated upon were those having a small, insignificant opening. Many times a whole buttock will have to be sacrificed to effect a cure in such cases. The etiology has much to do with determining the method of operating, looking to its cure or eradication.

To classify the disease simply by physical signs, such as external, internal and complete, gives but a faint idea of its nature; or to describe a fistula as a narrow channel, or sinus, lined with a so-called pyogenic membrane, is so far fetched as not to deserve recognition. No membrane ever secreted pus, and yet this term pyogenic is still used by some writers. Again, very few fistulæ are ever seen which are made up of a narrow channel or sinus. If such terms should be taken as guides in estimating the amount of disease, or mapping out an operation, not one in fifty cases would ever be cured. A far better division of fistula in ano, in my opinion, would be, namely, progressive and non-progressive. Some fistulæ can be left without an operation for an indefinite time. Others are so distinctive and destructive in their nature as to require immediate attention. Instead of mere sinuses in the region of the rectum, well-formed cavities with a continued disposition to break down tissue will often be found. Outside of the risk of sepsis in such cases, the local destruction may be so great as to render the individual a cripple or an invalid for life. It is a well-recognized fact that abscesses around the rectum, in a heavy percentage of cases, end in fistula. Many account for this fact by the statement that the circulation here is impeded by the absence of valves in this portion of the blood circulation. But a factor of far greater importance is overlooked, namely, that the tissues being soft, fatty and often flabby, are unable to resist the inflammatory process. Besides, it must be remembered that certain diatheses, or cachexias, render these issues peculiarly susceptible to the destructive process of inflammation. But even in healthy tissue the inroad from the inflammatory deposit is often such as to make an active and destructive condition that, unless heeded at once, ends in a serious complication of affairs. With this idea in mind, I would suggest some things which I think necessary in the successful treatment of this very troublesome affection. Speaking from a large and varied experience in surgery, I desire to say that it requires more delicate and precise operating to cure a complicated condition of fistula in ano than any other surgical affection of which I can think. In referring to the treatment of fistula I shall have nothing to say of the use of caustics, injections, ligatures, etc., proposed by some for the cure of this affection. They are, to say the

least of them, unsurgical and unsatisfactory. It is well known that there are comparatively but few cases of fistula in ano that are limited to a single tract. Indeed, the most prominent thing that should be brought out in operating for this trouble, is the laying open of all communicating branches. This can only be done, of course, by the use of the knife. It is too common with the profession to think of fistula in ano as simply an opening from the true skin down to or into the bowel. The fact is that all adjacent parts of the rectum may be undermined or invaded by these fistulous channels. It can be easily understood, looking to the pathology of this affection, that no treatment can compare with the knife in dealing with it. By its use all sinuses can be divided, the bottom of fistulæ cut through, overhanging edges trimmed away, such precautions which are absolutely necessary to a cure in such cases. The old idea that fistula in ano acted as a derivative in tubercular affections of the lungs is of course obsolete and appears in a ridiculous light to-day. Therefore the early eradication of the trouble, even in tubercular subjects, is much to be desired, and which can often be accomplished by an operation.

Ulceration of the Bowel.—I am constrained to believe, from my correspondence with physicians and the knowledge gained in consultation, that the opinion prevails that ulceration of the rectum (benign) is of most frequent occurrence. I wish to go on record as saying that it is the most frequent of all rectal troubles. Indeed, in eighteen years of experience in this line I have not seen one-half dozen cases of ulceration of the rectum due to simple causes. This alone would force me to believe that the statement of writers that this trouble is a frequent occurrence is chimerical. Mucous membrane is very seldom the seat of ulceration, except it be of a special diathesis. So well pronounced are my views on this subject, that I desire to state, without argument, whenever I see a well-pronounced case of ulceration of the rectum I am at once convinced that it has its origin in one of three conditions, namely, syphilis, tuberculosis or malignancy. As I have put myself on record, in my work on "Diseases of the Rectum," as saying that such causes of ulceration of the rectum as dysentery, pressure of the child's head, constipation, etc., are of the rarest occurrence, I would respectfully ask that the members of this Society call up any such cases in their minds and report them. So well persuaded am I that all such combined are insignificant as a cause of ulceration, that whenever I see an ulcer of a pronounced type in this portion of the gut, I know that it is of a much more serious origin than from any such causes as these. The three great factors, therefore, in my opinion, in producing ulceration of the rectum are tuberculosis, syphilis and cancer. With either one as a cause, ulceration is a very grave affair. If stricture of the rectum should result from any cause outside of these, it is easily remedied. It must be seen that such a stricture could only involve the mucous membrane, and would be annular in appearance. A simple dilatation would effect

a cure. But a very different condition of affairs would result from either one or the other of the three mentioned causes. In other words, a stricture from pressure, trauma, dysentery, etc., would be a benign or simple stricture. Whereas, from the last mentioned, namely, tuberculosis, syphilis or cancer, the stricture would be secondary to a constitutional affection. We are too apt to look for a demonstration of tuberculosis in the lungs, possibly in a joint, when from a later study of the disease it is recognized that the tubercle bacilli may have as a starting point any tissue or tissues, of the body. Notably is this true of the rectum. My record book will show many cases where tuberculosis has attacked the rectum and left other tissues unaffected. In regard to syphilis as a cause of ulceration, with consequent stricture, I have before this given it as my opinion that fully sixty per cent. of such cases result from this cause. I only ask a careful compilation of your cases to verify this statement. In this connection I wish to give it as my opinion that stricture of the rectum resulting from syphilis is just as incurable as cancer, the only difference being that cancer kills more speedily and that the sufferer from syphilitic stricture has a long lease on life. Strictures from cancer often exist without the manifestation of the pronounced symptoms that we usually expect. Indeed, there are many cases recorded from my practice where only constipation was complained of, with some reflex pain in contiguous organs. Of course this only holds good when the growth is located above the sphincter muscle and does not involve it.

Treatment.—Of course I can only suggest the manner or method of treatment of ulceration of the rectum, not having the time to enter into a full description of any plan. For a tuberculous ulceration there can be but one method to suggest. In the light of modern research it must be conceded that tubercular disease can have its origin or starting point in any tissue. The lungs may be secondary, in this trouble, to any other portion of the body. The surgeon meets with a tuberculous knee-joint, he excises it; if with tuberculous bone, he removes it, not only for its local effect, but from the knowledge that a general infection can take place from such foci. Therefore if a tuberculous ulceration of the rectum exists, it must be thoroughly curetted. I am confident that I have prevented a general infection in a number of cases by a full and complete curettement of the rectum. Of the syphilitic rectum nothing so good can be said. Whatever may have been the opinion of pathologists a decade ago, it must be agreed to-day, if syphilis affects the rectum, it is by a secondary deposit. By a gummatous building-up process. This assumes a fibrous condition beyond the power of nature to reabsorb. We must therefore accept the ultimatum, and do the best we can. I believe that the land-marks are plain enough, and the physical signs sufficient to draw the diagnostic line between strictures from this cause and the other causes I have mentioned. I might concede that, if syphilitic ulceration of the rectum was detected in its incipency, that constitutional medi-

cation might effect some good. But not so with the condition of which we are speaking.

When a decided stricture exists it becomes a matter for surgical interference. What shall it be? I am familiar with the fact that some writers deal with all serious ulcerations or strictures of the rectum in one of two ways—surgically, total excision or colotomy. I am averse to both. If syphilis has affected the lower rectum and results in stricture, it certainly appears advisable to divide or break the stricture and avoid the opening in the side. Especially is this true when we recognize that the process of infiltration is more or less self-limited, and we have nothing to fear in the extension of the disease except the obstruction. A free proctotomy in such cases is much better than a colotomy. If a stricture, the result of syphilis, exists in the movable or the upper rectum, I believe that it is an ideal case for a colotomy. It is a localized condition without the power of extension; nature cannot reabsorb it, and obstruction results, which to all intents and purposes is purely mechanical. If it is dangerous to dilate, an opening can be made above and the patient live indefinitely. How different from a cancerous stricture! The destructive process goes on, ends in death, regardless of the colotomy. In cancer of the rectum, or cancerous stricture, the two methods mentioned, namely, total extirpation or a colotomy, is resorted to. First, let us consider the propriety of total excision. With so many to recommend it, I feel some diffidence in entering my protest against it. Mr. Kraske has designed a most excellent operation for the removal of the rectum. But I would beg to ask, When is the operation justifiable? There are two propositions that I would submit for argument in reasoning against this operation. First, Is the patient ever cured of the trouble operated for by said operation? Second, Is the patient ever materially benefited or relieved by the operation? I beg to take the negative to both propositions. First, I take it for granted that the only cause for which it could be said that total extirpation could be advised is malignancy. I use the term synonymous with cancer. We note, then, the characteristic features of malignancy as follows: The disposition to grow, to ulcerate, to infiltrate and to propagate. It is an aphorism well known in surgery in cases of cancer, to "operate early if you desire success." All teachers, too, know how assiduously they teach the student to do a thorough operation and "cut wide of the mark" whenever dealing with this character of tumor. For instance, when removing malignant growths of the breast, how important it is, we say, to remove the glands in the axilla also. Again, how insidiously does a cancer invade the system and establish a cachexia. How difficult to tell the dividing line between a local condition and a general infection! Add to this the suspicion always that the tumor has likely propagated. These questions are difficult of solution, even when the growth is situated upon the external parts. How much more difficult when located in an obscure part of the anatomy, as in the rectum. Cancers

found here are so stealthy in their growth and in the invasion of tissue, that oftentimes the whole rectum is blocked by the mass when only symptoms of constipation and some reflex pain are complained of. Tissues surrounding this portion of the gut are soft and easy of invasion, the blood circulation is great, the lymphatics are freely distributed. The contiguous parts are vital ones, the bladder, peritoneum, the prostate gland and the vagina in the female are all easy of invasion. By the time that a growth in the rectum has assumed sufficient proportions to be diagnosticated as cancer, many of these parts are already invaded by the process of infiltration. To dissect and draw down the rectum in the normal state may be comparatively an easy matter, but to completely dissect out a rectum that is so pathologically changed, as in a cancerous growth, is nearly an impossibility. Besides the difficulty of accomplishing its free dissection, it is one of the bloodiest operations that I have ever attempted. Admit that it can be successfully done, what amount of good accrues to the patient? Infiltration is clearly proved by the amount of adhesion that is witnessed. Can we now "cut wide of the mark?" I believe that every surgeon present will concur in the opinion that, to make the operation complete, all glands in the inguinal region should be removed. But what about the infiltrated tissue left in and around the rectum? Then, of what use is the operation? A bloody procedure, rectum gone and infiltrated tissue left. Would any sensible surgeon dissect out a cancer in the breast and cover the wound with infiltrated flaps? Why, then, should a surgeon dissect out a cancer of the rectum and leave infiltrated tissue? If a growth of the kind is situated in the lower part of the rectum, of course it can and should be excised, for we take the precaution here to "cut wide of the mark." It may be said that after excision the patient lives for several years. (?)

I shall not take your time to enter into an argument *pro* or *con* concerning colotomy for the relief of cancer of the rectum, but will make it suffice to offer a few suggestions for your consideration. It must be a well-recognized fact that in the majority of cancers of the rectum located above the sphincter muscle pain is not a factor. It must also be admitted that, as a rule, these patients do not suffer from obstipation to any marked degree. Why, then, do a colotomy for the relief of pain that does not exist, or for an obstruction that oftentimes does not take place? No one will contend that by doing a colotomy that cancer of the rectum is either cured or its progress materially stayed. If an obstruction does exist, and is within reach of the finger, it is much better to do a proctotomy than to open the side. It is a disgusting operation at best, promising very little, and should be avoided if possible.—*Mathews' Medical Quarterly.*

HAVE WE ANY MEDICAL FACTS?

By JOHN R. HAMILTON, M.D., M.C.P.S., Port Dover, Ont.

Inasmuch as the practice of medicine is largely composed of anomalies, we are often led to regard the classification of diseases as greatly at fault, and to believe that the earlier teachers were often in error, both as to classification and therapeutics.

A few decades since venesection was considered an essential factor in the management of each and every ailment of the human race, to be followed almost as unvaryingly by some of the depressants—antimony, for example; but to-day the demand is for stimulation and general supporting measures. It would now be difficult to point out a practitioner who dares practice blood-letting except perhaps in some rare and special instance. The old-time calomel, while it still holds place in the *armamentarium therapeuticum*, no longer serves the purpose of a cholagogue, for which action it was originally extolled. In a case in which cholecystotomy was performed by a medical friend it was found the flow of bile (which was collected for several days) was actually decreased by the administration of mercurous chloride; also that it was greatly stimulated under the use of bismuth salicylate, a drug for which hitherto no such specific action had ever been claimed.

When we look back upon the myriad of new remedies that within less than a decade have become candidates for a place in the *materia medica*, only to shine for a month, perhaps, and then flicker and die, is it any wonder that doubt succeeds doubt and that the beliefs inculcated at the inception of the medical career are constantly being weakened? Look at the coal-tar derivatives and imitations in their numberless forms and striking nomenclatures! Each and every one has been claimed as a specific, true and absolute, in some form of febrile or nervous disease; and yet all, when put to the test, proved to be either flat failures or of so uncertain and dangerous a character that they can be employed only in conjunction with some powerful heart and nerve restorative. In the near future—indeed, the reaction has already set in—we will be compelled to fall back upon less persuasive, but much more safe and satisfactory drugs, such as obtained before these new medicaments made their *debut* in the medical world and set all rational therapeutics at naught. Another potent reason for discarding these synthetics and pseudo-synthetics is the prevalent practice of indiscriminate prescribing by the counter-chemist—a practice that is so demoralizing and so fraught with danger to the public as to demand special legislation; it is well known that these products can only be safely prescribed by a qualified physician, and even then their action requires to be critically watched, yet the percentage marketed through legitimate dispensing methods is known to be but a tithe of the great total of sales.

The arguments employed, *pro* and *con*, regarding the use of alcohol in medicine, are enough to befog the brain of the most faithful student; yet how few medical men can be found who, after a few years of practical experience, would undertake the duties of their calling without the aid of this drug! When we reflect on this and many other questions of like nature that confront us at every turn of life, it must be concluded that, leaving anatomy aside, there are very few medical facts.

On turning to pathology it is discovered that there is an even more marked division as to cause and effect than in therapeutics; and when was added the pathogenic microbe, confusion seemed to have reached its maximum. Perhaps at no time in medical history could this fact be more fully realized than in the present juncture, when it is found that the most beautiful platform erected by pathogenic bacteriology speedily crumbles before calm and dispassionate investigation. In Germany the Klebs-Loeffler bacillus first saw the light of day, and was claimed to afford certain settlement of all diagnostic disputes; but alas for the theory! the same little microbe is found in a score of maladies other than diphtheria, and moreover is frequently entirely lacking in the latter. So, too, the "cholera bacillus," so-called, is no more pathognomonic of the Asiatic scourge than of every-day rural scabies. We find another example of doubt when turning to a disease more generally prevalent than either diphtheria or cholera, namely, typhoid fever. In this malady, only a short time since the careful physician hesitated before he presumed to prescribe that mildest of cathartics, castor-oil; but now, forsooth, it is found, according to the report of a Toronto practitioner, these cases should all be treated by active purgatives at the very outset, whereby the percentage of mortality will be greatly lowered—I give this statement for what it is worth, but decline to stand sponsor thereto. And so we have a labyrinth of conflicting opinions, all doubtless the outcome of honest conviction and research, but which tend only to more impress the opinion that the profession is deficient in absolute medical facts.

In corroboration of the foregoing divergencies of opinion, I have to dwell on an epidemic of very unique character that occurred in my own neighborhood during the autumn and early winter of 1894. For any parallel to this the young practitioner would search his text-books in vain, as the only approximate classification is a few lines by some author on herpetic tonsillitis, and even here the most striking symptoms are conspicuous only by their absence. This malady at times presented more the signs and symptoms indicative of diphtheria than those of tonsillitis. So prevalent was the epidemic that scarcely a family escaped its visitation. On examining the throat, the exudate was generally found so exuberant as to form large patches in the same region of the fauces as the diphtheritic deposit occupies, remaining about the same length of time, and producing, in many instances, slight hemorrhage from the nose and throat. There was the same tumefaction of

tonsils, swelling of cervical glands and serous infiltration of surrounding tissues causing enlargement of the neck—of shorter duration, however, than in true diphtheria. In only one case did I see suppuration of the gland in a strumous subject.

The affected children generally had a decided rise in temperature, sometimes to 103° at the evening exacerbation. The pallor and listlessness of diphtheria were largely wanting, although in some cases drowsiness presented itself as one of the symptoms. The difficulty in deglutition, so common to all diseases of the throat, was perhaps more marked, but in most cases the appetite for food was not wholly wanting, and in many the amount of daily nourishment taken was about the normal quantity of health. The color of the exudate appeared to the naked eye to be nearly that of diphtheria, but perhaps not so ashen, and when removed from the throat dissolved more readily. The duration of the disease, in most cases, was about seven days, and convalescence supervened and progressed much more rapidly than in the more malignant disease. In no instance that I can recall did paralysis present itself as a sequel, the only thing of this character being a hoarseness, or a nasal twang to the voice, that soon passed off.

Of this particular form of tonsillitis we must have had in this small town and neighborhood at least one thousand cases, while in the county at large two thousand would probably be nearer the mark; and of this vast number, not one death was ever chronicled that I could discover, either from the disease *per se* or from its sequelæ; in fact, as soon as the dread of the epidemic, with its very diphtheria-like symptoms, had passed off, and it was discovered to be self-limited, many families declined all medical attendance, nursing their sick through the trouble as in ordinary cases of cold or mild bronchitis.

Every practitioner has not the time or appliances to make a culture test, nor the knowledge of the bacillus that would enable him to detect it when made; therefore, during the prevalence of this epidemic, as a matter of satisfaction to himself, one of my medical compeers sent a piece of membrane to an expert in a neighboring city, who promptly reported it harbored the Klebs-Loeffler germ. The case from which this was taken in nowise differed from the others; it made the same rapid recovery and exhibited none of the symptoms of depression or paralysis, or any other diphtheritic sequelæ. Now, if in this case the Klebs-Loeffler bacillus was present—and I have no cause to doubt its presence—we certainly have good grounds for accepting Hansemann's statement, corroborated as it is by a score and more of equally reliable observers, that the so-called diphtheria bacillus is often wanting in true diphtheria, and as often present and harmless in many other diseases of the throat.

The question now naturally arises: Have we this bacillus with us at all times? Does it remain dormant, merely awaiting an opportunity, when the

fortress is not guarded, to assert its virulence? In other words, is it always a stealthy enemy, lying in wait for the moment when atmospheric pressure is suitable and the vital force of the patient at low ebb, as some pathologists claim of the tubercle bacillus?

In view of the foregoing history of an epidemic, the like of which every medical man must have seen, or something similar in the way of anomalies, we are forced to the conclusion that the most learned of our profession have yet much to learn of diphtheria and its allied diseases, and when the anti-toxin treatment has been in use for a few years we may still discover we have only a few medical facts.

When one comes to the practical part of this or a similar epidemic, he can readily pardon the young man who calls it diphtheria, who naturally thinks his treatment specific, and wonders at his marvellous success; but unfortunately, sooner or later after this great run of success he is certain to encounter an epidemic of the genuine death-dealing diphtheria in which he loses every third case, when he will be apt to lay the blame of ignorance upon his teachers and text-books, because neither were sufficiently explicit in the differential diagnosis of diphtheria, and gave next to nothing as to the pathology and treatment of herpetic or follicular tonsillitis—nothing to enlighten him as to whether he is dealing with a simple and harmless case or with one of great dread and danger—in fact, whether he has on hand a case of life or death. While we excuse the younger man for his rashness in pronouncing a disease diphtheria which is not, we can never forgive the more aged schemer who pronounces it diphtheria for a sinister purpose. He sees in it a grand opportunity to increase not only his statistics, but his popularity and his purse; by doing so he gets the ear and attention of the thoroughly frightened parents, who have seen (according to their limited sense of vision) just such cases in the family of Jones and Brown during a former epidemic, where every third case died, while their present subject's advisor is not losing a case. Such fireworks are, however, generally, and fortunately, of short duration, and the owner is soon only in possession of the rocket-stick; nevertheless he will re-light this when the next epidemic of roseola visits his constituency, which of course will be called "scarlet fever" and treated with unprecedented success.

When we see nosologists and all medical writers, in fact, going to great trouble to give the differential points between diphtheria and scarlet fever—a fact ten times more easily discovered by the student of medicine than the differential diagnosis between the former and the epidemic malady just under consideration—we are again forced to believe that the authors of the future will view diphtheria in a different light than they have done in the past, and not try to convince us (as many eminent men of the British Isles have done) that croup and diphtheria are one and the same disease; in fact, a few good men still cling to that belief. We, of course, who have practiced in this country, think we see such a marked contrast between the sthenic croup and the asthenic listless diphtheria, that we wonder at such a conclusion, and wonder more whether we have any medical facts.—*Medical Age.*

NORTH CAROLINA MEDICAL JOURNAL.

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Editorial.

The Bursting Theory as Applied to the Diagnosis of Frac- tures of the Skull.

In 1886 Dr. Charles W. Dulles read before the Philadelphia College of Physicians a paper expounding the theory known as the "bursting theory" of indirect fractures.

He has recently, June 3d, 1895, presented another paper on the same subject to the Academy of Surgery, of Philadelphia. Many difficulties in diagnosis may be cleared up by this theory, and it should also be remembered in cases involving medico-legal questions. It will explain many cases of fracture outside of the regions covered by other theories as to the

forces which cause fracture of the skull.

The author gives the following brief outlines of the bursting theory: The skull is a hollow case, of a somewhat ellipsoid form, the wall of which is formed of bone, varying in thickness and density in different parts, and of a peculiar conformation, and with peculiar contents and coverings. When such a case is struck, or when it strikes upon a resisting body, it is compressed in a direction in the line of the force and counter-pressure (which latter may depend wholly on *vis inertiae*). The result of this compression is to shorten the prime diameter, and of necessity to lengthen the transverse diameters. As illustrating this first phase of action, Sir Charles Bell, in the early part of this century,

made an experiment (which is easy to repeat), in which he placed movable balls inside and outside of a hoop and touching it, and found that a blow upon any part of the hoop caused the ball immediately under it and that immediately opposite it to move toward the centre of the hoop, while those distant ninety degrees from it moved away from the hoop. If this experiment were to be modified so as to meet the conditions of a hollow sphere instead of a circle, we might place half of a hollow sphere upon a resisting surface, and, striking it on the upper pole, would find that this pole would approach the resisting surface and the circumference would be elongated and describe a larger circle. In such an experiment, made upon an elastic substance, the compression and elongation would be followed by a corresponding expansion and shortening. The first compression and elongation spoken of are of chief importance in indirect fractures of the skull, and in them we have (to use a simple illustration) conditions similar to those when an umbrella is raised. In the latter case it is plainly seen what takes place, namely, that, as the pole is brought nearer to the equator, this is elongated and the space between the meridians (the ribs of the umbrella) is increased. This increase being expected and provided for by material which lies in folds between the meridians, this is simply spread out. In a body with no such provision, however, any force that would bring its poles near together, and consequently lengthen its equatorial circumference and separate its meridians, would at once set up a strug-

gle between the force applied and the cohesion of the particles lying along and between the meridians. If the power of cohesion were sufficient, there would be no disruption; if, however, it were not, then there would be a split beginning at some point near the equator, where the strain is most severe, and passing in opposite directions toward the poles. This is what would take place in a perfectly symmetrical homogeneous elastic body. What naturally takes place in the skull is shown by observation and experiment to be this, modified by the peculiar structure, contents and surroundings of the skull.

Of course there are cases of fracture that cannot be explained by this theory, but the author has found in 90 per cent. of all cases he has investigated fissures which go to prove the correctness of the theory. It does not provide the surgeon with certainty of diagnosis, but with suggestions of probability, which will increase his chances of making a correct diagnosis. A study of a large number of accidental and experimental fissures shows that blows upon the forehead directly in the middle line, less sudden and less extreme than would cause direct fracture at the point where the force is applied, are likely to produce a fissure of the skull, passing from front to back in or near the middle line, and more frequently at the base of the skull than in the vault. Blows applied to the forehead on one side or the other are likely to produce fissures in a line with the direction of the force, and crossing the skull to the other side. Such fissures occur

almost always in the base, and they usually terminate in the middle cerebral fossa, though they sometimes cross the foramen magnum and traverse the cerebellar and posterior cerebral fossæ. Force applied to the middle of the occiput usually produces a fissure, passing in the direction of the force around the occiput, laterally or perpendicularly, sometimes separating the lamboid suture, sometimes splitting the lower part of the occipital bone and going into the foramen magnum, and sometimes crossing the petrous bone, breaking it transversely and passing into the foramen lacerum medius. Such fissures may pass straight down to the foramen magnum and (crossing over) split the body of the sphenoid bone and extend into the ethmoid or frontal bone. (Such fissures furnish typical illustrations of the correctness of the bursting theory.) Force applied to the side of the head, in almost all cases, produces a fissure passing through the base of the skull in the middle cerebral fossa. Such a fissure sometimes traverses this fossa completely and may pass entirely through the base and vault, dividing the skull into two halves. In some cases the fissure passes directly through the coronal suture; in many cases it splits the petrous bone longitudinally. In some cases force applied to the side of the head causes a splitting off of the posterior clinoid processes—an occurrence that is explicable only upon the supposition that the tentorium cerebelli, which is attached here and to the occipital bone, is put upon the stretch, when the skull is elongated antero-posteri-

ally and drags these portions from the body of the sphenoid. Force applied to the side of the head frequently produces fissures passing around the side of the head, through the parietal and squamous bones, and often passing to the basi-sphenoid, but rarely dividing it completely. In some cases force applied directly to the vertex produces a fissure in the long axis of the skull. Such a fissure may be of very great extent and may even divide a skull into two symmetrical halves.

Longitudinal (antero-posterior) fissures occur much more frequently in the base of the skull than in the vault.

Summer Session of the State Board of Medical Examiners.

The State Board of Medical Examiners met at Wrightsville on the 26th of August, and at the time of our going to press are still in session. There are present Drs. L. J. Picôt, Secretary, J. M. Hays, G. W. Long, H. B. Weaver and T. S. Burbank. Drs. W. H. Whitehead and J. M. Baker are detained at home. There are twenty applicants for license, four of them being negroes.

At the close of each day's work Examiners and candidates hie them to the beach and buffet the briny breakers of old ocean. It is a charming place for the summer session of the Board, and we trust that they will make it a yearly custom to meet there.

We will give the names of the successful candidates in our next issue.

Reviews and Book Notices.

Skiascopy, and Its Practical Application to the Study of Refraction. By Edward Jackson, A.M., M.D., Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills Eye Hospital; etc., etc. With 26 illustrations. Octavo, cloth, 112 pages. The Edwards & Docker Co., Philadelphia, 1895.

The determination of refractive errors in the eye by means of subjective measures has always been unsatisfactory

The author claims as a reason for a general use of skiascopy by ophthalmologists: 1st. It is an objective test, independent of the patient's intelligence or visual acuteness, and more largely than any other, independent of the patient's cooperation. 2d. It is by far the most accurate objective test. 3d. It requires but little more time than the use of the refractive ophthalmoscope, or the ophthalmometer, which are able to give very inferior information. 4th. It requires no costly, complex or cumbersome apparatus. 5th. It lays before the surgeon the refraction in each particular part of the pupil as it is revealed by no other test, and opens up the principal avenue for farther advance in the scientific study of the refraction of the eye.

The author gives his whole attention to the subject in hand and does not waste time and space with the anatomy and physiology of the eye. The history, name and difficulties are alluded to in the first chapter, while chapter II. studies general optical principles as they apply to skiascopy. The method of using the test to determine myopia, hypermetropia, regu-

lar and irregular astigmatism is then studied. Chapters VI. and VII. are devoted to the practical application of the plane and concave mirror respectively.

Under the head of "General Considerations" the author gives many useful hints in regard to the apparatus. He recommends the use of mydriatics in patients under 50 years of age and prefers homatropine hydrobromate, two to four per cent. solution. Four to six drops should be instilled into the eye, one drop at intervals of five minutes, an hour before applying the test.

The book is beautifully printed in large, clear type, is a pleasure to read, and should be in the hands of all who correct refractive errors.

Book of Detachable Diet Lists for Albuminuria, Anæmia and Debility, Constipation, Diabetes, Diarrhoea, Dyspepsia, Fevers, Gout or Uric Acid Diathesis, Obesity, Tuberculosis and a Sick Room Dietary. Compiled by Jerome B. Thomas, A.B., M.D., Visiting Physician to the Home for Friendless Women and Children and to the News-boy's Home, etc. W. B. Saunders. Philadelphia, 1895. Price \$1.50.

These ten lists have been compiled by the author from the most modern works on dietetics and will prove a great convenience. The busy practitioner has little time to prepare a written list of what his patient should take and what especially he should avoid. These lists are numbered and the key given in another place, so that there is no indication on the sheet to be left with the patient as to

the nature of the sickness for which the diet table is given. The stub provides a place for the name of the patient and the date; one side of the sheet to be left with the patient has space for the patient's name, the date

and directions; the reverse side gives general rules—what may be taken and what must be avoided.

The Sick Room Dietary is also detachable and gives recipes for various delicacies and nourishing dishes.

Abstracts.

ENEMATA IN THE TREATMENT OF DIARRHŒA.—In an editorial article the *Therapeutic Gazette* says: "We believe that large rectal injections, or injections of sufficient size to wash out the sigmoid flexure and colon, are not sufficiently resorted to, particularly in those cases of diarrhœa in which a catarrhal element is well-marked. In these catarrhal cases it will generally be found that, mixed with the watery portion of the discharge, there is more or less mucus in strings or flakes, which indicates, as a rule, that a certain amount of the trouble, at least, is situated in the colon. While the rule is by no means an absolute one, the presence of large quantities of mucus indicates very strongly that the whole trouble is in the lower bowel. It is evident, therefore, that the use of drugs by the mouth is a very indirect way of influencing the diseased area, since the medicament must pass through the œsophagus, the stomach, the duodenum and the small intestine before it arrives at the point where its therapeutic efficacy is to be developed. On the other hand, good results are attained if large clysters are given by means of a hydrostatic syringe

elevated not more than eighteen inches or two feet above the rectum. Such treatment will frequently control the movements, limiting them to one or two in twenty-four hours, even if the fluid character of the stool remains unchanged. Various substances have been employed dissolved in the water to be injected. Some of them have not only a powerful local action, but in addition are capable on absorption of producing widespread influences throughout the body. Among these may be mentioned salicylic acid and its relatives, nitrate of silver, iodoform, when given in oil emulsion, and some of the vegetable astringents. The substance which has always given us the best results under these circumstances is the sulpho-carbolate of zinc in the proportion of ten to thirty grains to an injection, amounting from two to three quarts. In some instances the water should be tepid, in others it should be as hot as the bowel can stand, and in still others it should be quite cold, the temperature of the injection depending largely upon the acuteness of the inflammatory process and the sensations of the patient, for in the same way that an application

of cold water is grateful to a sprained ankle of one individual, while another prefers hot water, so does one patient get comfort from cold injections and another from heated ones. If the water be cold, care should be taken that undue chilling of the body does not result in feeble persons, or if hot, on the other hand, that a mild degree of heat fever is not produced.

"The success of this treatment depends absolutely, in many instances, upon the gentleness and care with which the injection is given, and the water must be allowed to trickle into the bowl rather than to enter it with any force, for the three reasons that (1) if force is used, the bowel immediately resists the injection and perhaps forces it out; (2) it becomes so irritable that further injections are impossible; (3) this condition of rectal irritation reflexly causes irritability of the entire intestinal tract in much the same way that rectal ulcer may cause diarrhœa, and as a consequence the patient is worse than before the method was attempted. In those cases of chronic diarrhœa in which the patient is markedly emaciated and unable to digest much food, so that the condition of impaired nutrition is an important factor in preventing recovery, this method of treatment is to be highly recommended, and it is worthy of note that a small injection, amounting to an ounce or two of iodoform and sweet-oil emulsion, in the proportion of five grains to the ounce, injected into the bowel after a large watery movement has passed away, will relieve any tendency to tenesmus, and by the absorption of a small amount of iodine

exercise a useful influence over the catarrhal process which underlies the symptoms which we are treating."—*N. Y. Med. Jour.*

THE PREFERABLE FORM OF QUININE TO BE USED IN THE PREVENTIVE THERAPEUTICS OF MALARIA.—In a report on this subject by Patein before the Société Thérapeutique, made in February, 1895 (*Rev. Int. de Med. et de Chir. Pratiques*, April, 1895), that authority concludes from his experiments, both chemical and upon animals, regarding the absorption of the drug, that quinine should be administered in the form of different salts, according to the purpose and period of the disease. The basic sulphate of quinine has been the standard salt employed for many years, while the bromhydrate and chlorhydrate have lately been preferred, especially for the hypodermic method of medication, because of their greater solubility. When, however, we come to prophylactic medication, a more slowly soluble salt is to be preferred, since it will then enter gradually into the system, and will thus keep up the effect of the drug for a longer period of time. The salt must also be one that is readily prepared. The conclusions arrived at by M. Patein are of great practical value; they are as follows:

1. Quinine in solution should be reserved for the attack of the fever.

2. As a prophylactic, the basic chlorhydrate should be preferred; it is the richest in alkaloid, and its solubility is sufficient; it is less irritant to the alimentary canal. The bromhydrate should be employed in cases

of rebellious fever where the chlorhydrate does not act rapidly enough.

3. All compressed tablets should be rejected; pills containing a soluble excipient only should be employed, while the gelatin-coated "perles" are to be preferred in preventive medicine.

4. These perles, containing four grains of the chlorhydrate of quinine, should be given, one in the morning and one at night, with a slight amount of liquid. This amount taken at these intervals is sufficient to maintain the system under its influence continuously.

5. Whatever the pharmaceutical preparation employed, it is always necessary to determine that it is soluble.—*Thera. Gaz.*

ANTIPYRIN IN SURGERY.—In the *Philad. Med. News*, of December 15, Dr. Roswell Park again calls attention to the value of antipyrin as a styptic. He has made frequent use of it since 1885, and does not hesitate to pronounce it the most valuable styptic we have, and an antiseptic as well, comparing "very favorably" in this respect with most of the aniline or coal-tar derivatives that we use in medicine." He employs it most frequently in a five per cent. solution, in sterilized water, as a spray, and does not hesitate to use it in the peritoneal cavity, or upon the surface of the brain. He says: "I have found that antipyrin has power, not sufficient to contract vessels of any size that spurt, but to almost instantly blanch and check oozing from any surface from which blood is escaping just fast enough to be an

annoyance." . . . "It may be injected into a cavity, as in bone; it may be applied on compresses to the oozing surface, or it may be sprayed as mentioned; but, no matter how applied, under circumstances indicated within the limits given, it will seldom, if ever, be found to disappoint." He has found it, bacteriologically and in practice, antiseptic, and it is practically unirritating. It is especially valuable in operations within the nose, mouth, urethra and bladder.

The remarkable analgesic properties of antipyrin, locally applied in inflammation of mucous membranes, have been pointed out by Hinkel (*N. Y. Med. Jour.* for October 28, 1888), Vigneron (*Concours Med.*, August 11, 1894), and others. We shall be glad to have reports from other surgeons who have used it, and especially pleased to know if it can be used without harm about the eyes. If so, it will prove a great boon to the ophthalmologist in some operations upon the eye and its appendages, which are often rendered very tedious and difficult by the presence of even a small quantity of blood.—Editorial in *The Railway Surgeon*.

THE PRESENT TREATMENT OF URETHRITIS IN NEW YORK.—Guiterras (*Med. News*, vol. lxvi., No. 14) states that the methods of treating this trouble in first-class institutions and private practice seem quite similar. In the best dispensaries the treatment carried out is as follows: The craze for examining for the gonococcus has abated, and most men conclude that in the vast majority of

all cases of urethral discharge the germ is present. In the ordinary acute gonorrhœa, before the process has travelled back beyond the compressor urethræ, or cut-off muscle, diluents are administered, usually potassium salts or large draughts of water. Locally, treatment varies; some use boric acid or permanganate irrigations, together with hot sitz-baths; others give no local treatment. Others give astringent hand injections. When the case becomes indolent, silver nitrate irrigations are employed.

For acute posterior urethritis, diluents are employed, and by some silver nitrate instillations, beginning with one grain to the ounce and increasing in strength. Anterior injections are usually omitted. The more conservative employ no local treatment beyond hot rectal enematas, etc. In the subacute total urethritis, some use astringent injections of silver nitrate, potassium permanganate, or mercuric chloride, which they inject into the bladder, then have the patient expel by urination. Others make deep instillations of strong silver nitrate solutions and anterior endoscopic applications, giving boric acid as an injection for home use. If stricture is present, this is always dilated or cut.

Guiteras personally uses in the acute stage diluents and anterior hand injections. As a diluent, he employs a tablet containing 5 grains each of tartrate and bicarbonate of potassium. This effervesces when thrown into water. One is taken every three hours. The astringent hand injection is a modification of Ultzmann's, that is:

℞.—Zinc sulphate,
Alum,
Carbolic acid, of each, gr. v.
Glycerin, f ̄ ss.
Distilled water, enough to
make 4 ounces.

This is used daily after urination, the anterior urethra being irrigated with hot water.

Where the case is markedly inflammatory in type, the injection is omitted. If the injection above given is not efficient, the following is then

℞.—Zinc sulphate, gr. x.
Extract hydrastis, fl., f ̄ ss.
Rose-water, enough to make
4 ounces.

Or, this failing, Ricord's injection is used.

If posterior urethritis occurs, anterior hand injections are omitted, diluents continued, with 10 drops of belladonna, three times a day, to relieve tenesmus. If the process is very acute, the patient is put to bed on a milk diet and given hot sitz baths three times daily. For very severe tenesmus, suppositories containing one-fourth grain each of belladonna and morphine are used. The bowels are moved by Rochelle salts or hot water enematas containing a little glycerin. As soon as symptoms abate instillations of silver nitrate are used, beginning with a grain to the ounce, gradually increasing the strength, making applications every other day. At the same time, sandal-wood oil is ordered, beginning with 10 drops and increasing 5 drops a day. This not answering, then cubebs, copaiba or the Lafayette mixture is ordered.

When the posterior urethritis is cured, astringents are again employed for the anterior trouble. If the case is rebellious, anterior injections are used once daily of 1 to 3000 potassum permanganate solution from a fountain syringe. Where this fails, silver nitrate is substituted (1 to 8000), increasing to 1 to 1000. Discharge persisting, search is made for stricture. This, if found, is dilated with an Oberlander dilator or an ordinary Otis urethrotome. After dilating by slow process, sounds are passed, anointed with equal parts of red mercuric oxide and vaseline. The urethra having a smooth bore and the gleet discharge continuing, an endoscopic examination should be made and silver nitrate applications made through it.

The author states that by silver nitrate injections 80 p. c. of cases treated have been apparently cured in less than ten days. They were treated as follows: The patient, after passing urine, has his anterior urethra washed out with warm water, and a syringe of silver solution is then injected and allowed to escape immediately. A syringe of a saturated solution of boric acid is then injected and retained for five minutes, and the patient is then requested not to pass his urine until as long a time as possible has elapsed.

The greatest care should be taken in the preparation and keeping of this solution, and it should never be increased beyond 10 grains to the ounce, or 2 p. c. in strength. The best method of keeping it is to have ten colored bottles filled with the different strengths of the solution, from one to ten grains to the ounce. These injections should be made with the greatest care, increasing one grain in strength each day. No pain is noticed by the patient, except a little burning at the third and fourth injections. The patient's discharge is usually checked or reduced to a little watery secretion on the seventh or eighth day, when the silver nitrate treatment is left off and the patient is put on anti-blennorrhagics and hand injections for a week, and directed not to drink or indulge in venery or other excesses for a period of three weeks. It is never necessary to go beyond a ten-grain solution. If the discharge has not ceased at this period, the treatment should be changed for astringent injections and anti-blennorrhagics.

Before beginning the above treatment the patient is placed on a diluent mixture and a hand astringent injection, the modified Ultzmann's being preferred. Then once a day an injection of a silver nitrate solution.—*Therapeutic Gazette.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From August 8 to August 21, 1895.
Powell, Capt. Junius L., Assistant Surgeon U. S. A., is granted an ex-

tension of one month of his leave of absence.

Ewen, Major Clarence, Surgeon, is granted a further extension of his leave of absence of two months, on account of sickness.

Gibson, Capt. R. J., Assistant Surgeon, is granted an extension of his

leave of absence of twenty-three days.

Tesson, Capt. Louis S., Assistant Surgeon, is relieved from duty as Attending Surgeon at Headquarters Department of the Missouri and Examiner of Recruits at Chicago, Ill., and ordered to Fort Ethan Allen, Vermont, for duty, relieving Captain Aaron H. Appel, Assistant Surgeon. Capt. Appel, on being thus relieved, will report for duty as Attending Surgeon and Examiner of Recruits, Chicago, Ill.

A board of officers to consist of Major Philip F. Harvey, Surgeon, Major George H. Torney, Surgeon, and Capt. Charles F. Mason, Assistant Surgeon, is appointed to meet at West Point, N. Y., August 15, 1895, or as soon thereafter as practicable, for the physical examination of the cadets of the first and third classes; the cadets of the second class, on their return from furlough, and such other cadets of the U. S. Military Academy, and candidates for admission therein as may be ordered before it.

A board of officers is appointed to meet at Fort Robinson, Neb., on Friday, September 6, 1895, for the examination of Captain Lous W. Crampton, Assistant Surgeon, with a view to determining his physical fitness for promotion. The following is the detail for the board: Colonel Dallas Bache, Assistant Surgeon General, Major Henry McElderry, Surgeon, Major Jos. K. Corson, Surgeon.

Kieffer, Chas. F., Assistant Surgeon, U. S. A., is granted leave of absence for two months.

THE NAVY.

For two weeks ending August 24, 1895:

August 14. — Assistant Surgeon, M. S. Guest to the "Minnesota."

August 17.—Surgeon S. H. Dickson is detached from the Medical

Examining Board to temporary duty in Bureau of Medicine and Surgery.

Assistant Surgeon C. P. Bagg is detached from the "Monterey" and granted two months leave.

P. A. Surgeon H. T. Percy is detached from the Washington Navy Yard to duty as a member of Medical Examining Board, Washington.

Assistant Surgeon H. D. Wilson, on arrival of "Monongahela" at Annapolis, is detached from that vessel and ordered to temporary duty at the Washington Navy Yard.

MARINE HOSPITAL SERVICE.

For the 15 days ending August 15, 1895:

Wasdin, Eugene, P. A. Surgeon, is granted leave of absence for ten days, August 1, 1895.

Williams, L. L., P. A. Surgeon, to proceed to South Atlantic Quarantine Station for temporary duty on being relieved by Assistant Surgeon, E. Prochazka, August 6, 1895.

McIntosh, W. P., P. A. Surgeon, is granted leave of absence for thirty days from September 1, 1895—August 5th, 1895.

Magruder, G. M., P. A., to assume command of small-pox camp, Eagle Pass, Texas. August 10, 1895.

Geddings, H. D., P. A. Surgeon, is granted leave of absence for thirty days on being relieved by P. A. Surgeon L. L. Williams.

Brown, B. W., P. A. Surgeon, to proceed to New London, Conn., as Inspector, August 15, 1895.

Roseman, M. J., P. A. Surgeon, to proceed to Eagle Pass, Texas, for temporary duty, August 4, 1895.

Nydeggerd, Jas. A., Assistant Surgeon, to assume charge of Detention Camp, Waynesville, Ga., in addition to other duties, August 14, 1895.

Prochazka, E., Assistant Surgeon, to proceed to Charleston, South Carolina, for temporary duty, August 6, 1895.

QUESTIONS SUBMITTED BY THE BOARD OF EXAMINERS AT
WRIGHTSVILLE, AUGUST 26-30, 1895.

Materia Medica and Therapeutics.—

DR. L. J. PICÔT.

1. Give symptoms and treatment of ptomaine poisoning.
2. Give symptoms and treatment of aconite poisoning.
3. Give prophylactic and curative treatment of nephro-lithiasis.
4. Give treatment of lithæmia.
5. Give symptoms and treatment of acute uræmic poisoning.
6. What are oxytoxics. Name principal ones.
7. Define difference between myotics and mydriatics and name chief mydriatics.
8. Give antagonistics to chloral.
9. Give treatment of chronic gastric catarrh.
10. What is hydrotherapy?
11. Write two prescriptions of three ingredients each, stating for what each should be given.

Anatomy.—DR. T. S. BURBANK.

1. Name coverings of brain.
2. Describe the clavicle.
3. Describe the liver.
4. Describe the bladder.
5. What muscle is pierced by the femoral artery?
6. Give linea guides to common carotid arteries.
7. What arteries make up the celiac axis?
8. Give difference between serous and mucous membranes.
9. Give the origin and course of the great sciatic nerve.

10. Give difference in origin and length of the right and left subclavian arteries.

Physiology.—DR. H. B. WEAVER.

1. In what (4) ways do peptones differ from albumins?
2. What are the four specific actions of the pancreatic juice?
3. What nerves modify the action of the heart, and how?
4. How is the caliber of the blood-vessels regulated?
5. What is the source of animal heat?
6. Describe the mechanism of urination.
7. What are the properties and functions of nerves?
8. Give origin, distribution and functions of the triacial nerve.
9. Draw a scheme of the conducting paths of the spinal cord.
 - (a) Give course of anterior roots.
 - (b) Of posterior roots.
 - (c) Decussation of motor and sensory fibers.
10. Describe the corpora quadrigemina and give their functions.

Surgery.—DR. W. H. WHITEHEAD.

1. Name varieties of ulcers. Describe and treat an acute ulcer.
2. What is an abscess, and what are the varieties of abscesses?
3. What are the symptoms and what the treatment, constitutional and local, of burns and scalds?
4. What are the symptoms of concussion and the treatment of compression of the brain?

5. What is the cause, what are the symptoms and what is the treatment of cystitis?

6. In case of threatened death during general anæsthesia what measure should be adopted?

7. What are the symptoms of stone in the bladder?

8. What is hydrocele, the diagnosis, treatment and operation for the same?

Gynecology, Obstetrics and Pediatrics.—

DR. J. M. BAKER.

Gynecology.

1. What is meant by retro-version? by retro-flexion? Describe the various methods of treatment.

2. What are the indications for the use of electricity in gynecology? Give the therapeutic effect of the positive and negative poles of the galvanic current. What is Ohm's law?

3. What are the causes, symptoms and treatment of pyosalpinx?

Obstetrics.

1. Describe the pelvis; give its diameters. Give the diameters of the fetal head.

2. Give the etiology and treatment of eclampsia.

3. Give the causes of persistent occipito-posterior positions. How should such cases be managed?

4. Give the cause, symptoms, diagnosis and treatment of puerperal infection.

Pediatrics.

1. Give the definition, causes and pathology of acute anterior poliomyelitis.

2. Describe tuberculosis of joints and give symptoms and treatment.

3. Define hereditary syphilis, describe the principal symptoms and give the prognosis and treatment.

The Board of Examiners adjourned and left for their homes on the 30th. There were 21 applicants examined and licenses were granted to 14—just one-third failing to show a sufficient knowledge of medicine to fit them to practice among the people of North Carolina. As will be seen from the questions above, the examination was a very fair one. The usual 80 per cent. was required. The following are the successful applicants: T. J. Sevier, D. E. Sevier, W. L. Hilliard and J. P. Millard, of Asheville; T. E. Hartsell, of Concord; H. W. Carter, of Fairfield; John McCampbell, of Morganton; C. J. Sawyer, of Bellcross; B. R. Graham, of Wallace; E. A. Moye, Jr., of Greenville; W. P. Holt, of Willard Mills, and S. M. Mann, of Manteo, all these being white, and to C. H. Barnhardt, of Mt. Pleasant, and W. F. Fuller, of Reidsville, both colored. There are two more steps these should take—subscribe at once to the NORTH CAROLINA MEDICAL JOURNAL, which is published twice a month at only \$2.00 a year, and attend the next meeting of the State Society at Winston and associate themselves with the representative physicians of the State. The JOURNAL makes a splendid premium offer this month, which may be seen on the second page of cover.

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Original Communications.

SOMETHING OF SURGERY UP TO DATE.

BY CHAS. O'H. LAUGHINGHOUSE, M.D., Greenville, N. C.

My youth and inexperience make me diffident in attempting to discharge the duty conferred upon me; for anything like a complete report of surgical advance, made by even a competent reporter, would take more time than we could give this, the greatest and most progressive branch of our art.

I will attempt to give you at least

SOMETHING OF SURGERY UP TO DATE.

however, asking in advance that you throw the mantle of charity over all shortcomings, and trusting that the other papers of my Section, which will follow this, will bolster up my deficient efforts and, after all, make the report on surgery and anatomy an interesting one.

I will first ask your attention, in as few words as possible, to brain surgery, hoping to give a sufficient number of facts to show what has been attained in this progressive field.

Until recently the skull was regarded as a region, surgically speaking, so dangerous, that *dantes malto*, "Abandon hope all ye that enter here" might have been considered as an appropriate warning to those who desired to attempt an invasion of its contents. The relation of the functions of various portions of the brain and of operative possibilities on this part of the body have exercised a marked influence upon recent surgical practice, so that we can now, with almost absolute certainty, map out various portions of the cortical substance from the exterior of the skull.

For example, the fissure of Rolando, around which cluster so many important centres, can be localized externally with surprising certainty by lines

*Read before the North Carolina Medical Society, May 15, 1895.

drawn from stated points. Once the position of the fissures is obtained and the brain exposed, the latter can be faradized and the motor cortical centres located. A great deal of study and experimentation has been carried on along this line of late, and many things by enthusiasts have been put down as proven.

The following facts, from all the information I can gain, seem to be the larger part of what has been undoubtedly proven:

1. That when regions of cortex of brain of lower animals are irritated by mild electrical currents, *motion* is produced in portions of the body over which the irritated region presides.

2. That portions of the cortex shown to be closely associated with *motion* are known as the Rolandic region, which is composed principally of the convolutions separated by the fissure of Rolando as well as parietal lobule. The above region is subdivided into special centres, found out and proven thus.

Irritation of the parietal lobule and upper junction of ascending frontal and parietal convolutions produce in lower animals advance of opposite hind leg and flexion of thighs and toes, as in walking.

When the middle portion of the ascending convolution is irritated, movements of hand and arm follow. The lower portion of the same convolutions are in like manner shown to preside over movements of mouth, tongue and nose.

Coming posteriorly near the angular gyrus, irritation results in movements of eyes and eyelids, while still further down on the superior temporo sphenoidal convolution there is pricking of opposite ear, turning of head and eyes to opposite side and dilation of pupils.

Other regions, though irritable, are not connected with coördinated movements, while a large portion of cerebral cortex is insensible to faradization. These experiments teach us two facts:

1. That "motor activity," though present to a great extent in the so-called "motor area," is not entirely confined to this area.

2. That while each hemisphere is closely associated with the opposite half of the body, to a subordinate degree it also presides over the same side.

What has been said is all I can find positively proven concerning cerebral localization. There are a great many other probably soon-to-be facts, but as yet they are *sub judice*. Some of these are, in a few words, as follows:

1. That the brain of monkeys and other lower animals in the same class resemble the brain of man to such a degree that what was true of one is equally true of the other.

2. That both in man and lower animals the brain is so differentiated that certain areas preside over allotted functions, and that they are capable of being subdivided—this being especially true of motion and true also, but to a lesser extent, of the special centres.

3. That the brain has been mapped out into centres of motion, sensation,

sight, hearing, speech, smell and taste, and that they have been located as follows:

Motion.—The ascending frontal and parietal convolutions, their superior and the paracental lobule is known as the "Motor or Rolandic Region," and has been subdivided into fingers, hand, mouth, etc., every muscle and group of muscles being represented by a definite area in the cerebral cortex.

These conclusions are results partly of comparison experiments with animals and partly of pathologic research, and may be thus summed up:

The superior parietal lobule, when stimulated, causes advance of hind leg.

The upper portion of the ascending parietal lobule holds the complex movements of leg, arm and trunk.

The ascending parietal lobule holds individual and combined movements of fingers and wrists and also prehensile movements.

The posterior extremity of superior frontal convolution possesses movements which extend forward the arm and hand.

The ascending frontal convolution is the region in which is held the power of supination and flexion of forearm.

In the lower one-third of the ascending frontal convolution and at its junction with the ascending frontal and ascending parietal is stored motion of mouth and tongue.

The superior and middle, frontal and superior marginal lobule and angular gyrus possess movements of mouth, eye deviations, change of pupil and turning of head.

First temporal convolution, when irritated, causes turning of head, dilatation of pupil and pricking of ear.

Visual Centre.—Different localizers have by no means agreed as to many minor points concerning this centre, but the occipital lobe seems to have such a majority of supporters as to be deemed the accepted centre.

Auditory Centre.—Experiments made on lower animals, according to Hamilton, are far from satisfactory, but the position most agreed upon, according to the knowledge of the subject, is the superior temporal convolution.

Speech Centre.—There is no fact in cerebral surgery more generally recognized than a speech centre, yet it is not included among the centres proven undoubtedly. While localizers recognize the close relationship between the destruction of Broca's region and aphasia; yet they deny that, in the strict sense of the term, it is a proven centre, still we know, without any doubt, that when Broca's region is involved in any destructive process there is often right-sided hemiplegia with aphasia.

Tactile Centre.—There is no question about the cerebrum more undetermined and seemingly undeterminable than is this. Farrier and his followers locate the centre in the hippocampal region, but the majority of localizing specialists, Flasing among the number, believe that the cortical centres, or

the field for motion and sensation, overlap each other, both occupying the Rolandic region.

From the above summary it is seen that in reality little is positively proven, yet the importance of these researches is undoubtedly great, for not only have they opened up a new field for experimentation and added greatly to our knowledge of cerebral surgical physiology, but they have aided us immeasurably in diagnosis and have been the basis for many brilliant operations successfully performed for localized growths, deposits and injuries of the brain.

Our medical journals are filled with operations justified by diagnoses which could not have been made but for what knowledge we have concerning cerebral localization. We have every right to expect a great deal more from it than we now possess. However, after referring to some few cerebral operative procedures, we will leave the brain to the wise handling of the next compiler of our surgical report.

Under the head of operations we will first look at craniectomy for microcephalus, which has been a subject of some interest for the past year, various journals having reported with both favorable and unfavorable results. A great deal of discussion has taken place on the future utility of this operation, and Dr. Karl Beck having studied the subject most thoroughly and presented it in the form of a very interesting and impartial article discussing both sides with equal justice, I deem it not amiss to quote his conclusions.

1. He believes craniectomy to be a justifiable operation and apt to be successful in cases of microcephaly, with idiocy.

2. That its success depends on the kind of microcephaly and the degree of idiocy.

3. That acquired and late forms of this disease give a better prognosis than congenital cases.

4. That the danger of the operation is not very great.

5. That the operation should be extensive, that is, the opening in the skull should be large enough to permit dilatation.

6. That the patient must be given a thorough pedagogic treatment afterward.

Trephining for brain affections is daily becoming more general. In fact, its field of usefulness is broadening so greatly that one cannot, in a report limited to twenty minutes, give any idea of its present position. I will confine my remarks under this heading to opening the skull for a very few diseases.

First, we will take encephalitis. For this disease trephining has met with some success, and so great a man as Victor Horsely strongly advises this treatment as a means of giving vent to inflammatory exudations, favoring it more strongly in chronic than in acute cases.

A case reported by Dr. Barker shows where an ounce of odorless pus was

evacuated from fissure of Sylvius with good results. It is as yet too early to form positive opinions as to this mode of treatment, for there is little experience to guide us; but, to say the least, it seems rational surgery, for inflammation of the brain, like other portions of the body, is followed by exudation and suppuration, and the presence of pus within a cavity with no possible means of outlet like the skull, will surely cause rapid tissue change, with pressure symptoms in addition. This being granted, does it not seem reasonable that we should afford a means of outlet by trephining, opening the dura and draining?

When exudation, serous or purulent, occurs in a periosteum, we open it up and give vent to the fluid. So in inflammation of the brain, with serous exudation, future experience may show that it is wise to drain the exudate before it becomes purulent and causes irreparable damage to brain tissue. If we do not do this we still have some hope of giving relief, provided purulent infiltration becomes sufficiently localized to force an abscess, as cerebral localization has become well enough perfected to give us material diagnostic aid, as far as position of abscess is concerned. We can open this and drain with some expectation of success. When inflammation reaches this stage, according to the latest authority, we are warranted in practicing extreme trephining because its dangers are nothing to compare with leaving the abscess unevacuated, which, when left in this condition, will surely prove fatal.

Great advance has been made recently in surgery of lateral ventricles. Until of late it was believed that any injury to this part of the body was essentially fatal, even though this fact was disproved by the occurrence of some cases which recovered where the lateral ventricles have been opened by fracture.

Professor Keen has shown very clearly the fallacy of such opinions by puncturing lateral ventricles through the brain substance with accuracy, introducing drainage-tube into ventricles, allowing it to remain several weeks without inflammation of either brain or its membranes. He has even irrigated lateral ventricles from side to side after bilateral trephining without material discomfort to patient.

These facts teach us that we should not in fracture involving the ventricles give a patient up to die, but treat the case with the same antiseptic precautions we would have given it were there no injury.

Trephining for insanity, based upon focal symptoms, has met with some success during the past year, and many cases of interest have been reported, but time is too limited to give more than mere mention to this.

Dr. Keen, of Philadelphia, in a very interesting article on recent advances in brain surgery, gives some valuable hints which I will mention, then I will not tax your patience longer with this subject, but will ask you to listen to what is going on in the gall-bladder.

In discussing infectious diseases of the brain arising from middle-ear

disease, Keen lays great stress on opening up the mastoid just over the mastoid antrum, which, if you remember, is a single cavity, about the size of a pea in the centre of the mastoid spaces. In perforating the antrum to evacuate pus, according to Treeves, the drill is entered one-fourth of an inch behind the orifice of the meatus and a little below the level of its upper wall, the instrument being thrust into the bone nearly parallel with the auditory canal with an inward, a little forward and upward motion. Keen prefers the antrum:

1. Because it has direct connection with the middle-ear, and therefore will be the first part invaded by the pus.

2. Because from the antrum you can more readily reach the mastoid cells, which are so often filled with pus. Having reached the seat of suppuration, he cleanses it, not by a simple washing only, but by wiping out the cavity thoroughly with soft antiseptic gauze. He prefers opening the skull for mastoid disease with the ordinary carpenter's sink instead of a trephine, condemning chisel and mallet, believing that the blows of the mallet produce a disturbance within the skull sufficient to diffuse the pus and cause damage to affected brain tissue. There is danger, also, of the chisel going too deeply and penetrating the lateral sinus.

Macewen recommends for opening mastoid spaces a rotating bar such as dentists use.

An interesting and useful anatomical point in regard to operations about the mastoid is the supra meatal triangle, called attention to by Dr. Macewen. The boundaries of this triangle are, the root of the zygomatic process above, the posterior border of the meatus in front, and a line joining the two behind. The value of this triangle is two-fold:

1. Just at the base of the triangle lies the antrum. If you perforate at the base you will reach it.

2. The sigmoid portion of the lateral sinus always lies back of it, and is therefore out of danger when a perforation is made at the base of the triangle.

Again, if you draw a line back of the triangle, parallel to its posterior border from the posterior inferior angle of the parietal bone to the apex of the mastoid process, this line will correspond to the axis of the sigmoid portion of the lateral sinus, or, as it is better called, the sigmoid sinus.

Leaving the brain, which I fear has taken up so much of your time as to render you impatient, we will turn our attention to some surgery which has a history not to exceed twenty years. I allude to surgery of the gall-bladder. Only a short time ago operations now successfully performed for diseased conditions in this region were unheard of and deemed impossible. But now, thanks to aseptic and antiseptic methods and that life-saving, time-saving, ingenious Murphy button, surgery of the gall tract has become an inviting and absorbingly interesting field. Though results are not perfect, still many

glorious achievements have been attained and countless lives saved. The journals are fertile now with cholecystostomies—otomies, ectomies, entrostomies, etc; and even in the short space of twelve months great advancement has been made especially in technique.

From what I can gather the operations done on the gall-bladder up to date are as follows:

1. Incision of gall-bladder without further operative procedure, performed when the bladder has become gangrenous or surrounded by adhesions so extensive as to make it impossible to suture it to abdominal walls or anastomose it with any portion of the intestinal tract; or, where drainage of bladder is compulsory and you wish to use it as a canal in dangerous obstructive jaundice. By this method you may drain by the introduction of the tube into the bladder and packing it around with aseptic gauze, thus protecting the peritoneal cavity. A better method of drainage, however, is that described in the *Medical Record*, January, 1894, by Dr. John B. Murphy. He has invented a "button tube" drainage which has the advantage of—

- (a) Being more quickly and easily inserted deep down into the abdominal cavity.

- (b) Preventing any contact of bladder contents with abdominal viscera until sufficient adhesions have been formed to render leakage impossible.

- (c) It leaves a long opening in the bladder when withdrawn, through which calculi may be extracted.

2. Cholecystendycis, or incision of gall-bladder with immediate suture and reposition into abdominal cavity, is another operation with a mortality of about 35 p. c. Though rarely used now, still it is worthy of mention, if for nothing else than to condemn it.

3. Cholecystotomy, or suture of gall-bladder to abdominal wound with secondary incision, is an operation done at two sittings. After adhesions have formed, which take generally from ten to fifteen days, the bladder is opened and its contents allowed to escape.

4. Cholecystotomy at one sitting or suture, with immediate incision, is a method where the whole operation is completed at one time. The opening being made into the gall-bladder as soon as it has been stitched to abdominal wound without waiting for adhesions.

5. Puncture of the gall-bladder is mentioned simply to condemn it. Even a needle puncture remains patulous, so this operation is on its face a dangerous one. Even if it were devoid of danger, it can do but little good except as a diagnostic step.

6. Cholecystotomy, or incising the bladder, removing its contents and suturing it to abdominal wall with extra peritoneal sutures.

This is a method seemingly not much in favor now. It was intended to replace cholecystendycis—diminishing the danger of this operation by having the bladder sutured extra peritoneal, so in case the suture should leak or

break the bladder contents would not come in contact with the peritoneal organs.

7. Choledo lithotripsy, or crushing of gall-stones; stones, when impacted in duct, are sometimes crushed with the finger or a needle passed through the duct on to the stone, may break it in half, then, by careful manipulation, the stone can sometimes be pulled on through the duct into the intestine or back into the gall-bladder.

Cholecystectomy by means of Murphey's button is decidedly the most popular and most satisfactory operation for opening gall-bladder. Its advantages over all others is so patent that its use has become general, excluding, to a great extent, many other methods. It has the following points of excellence and superiority when compared with other operations:

1. Saving of time.
2. It is more easily performed.
3. It is devoid of the danger of leakage, as it gives firm, close and accurate approximation of gall-bladder to parietal peritoneum.
4. It leaves a large opening through which gall-stones can be removed.

Cholecystenterostomy, or connecting the gall-bladder with the intestine is a favorite operation, and when feasible, is preferred to the other methods, as it gives the system the necessary amount of bile. If pathological conditions require a cholecystotomy, the Murphey button method is preferable to most authorities. This button has doubtless come to stay, though it is a young invention, still it has saved many lives and much precious time.

Not only has it proved useful in gall-bladder surgery, but in intestinal anastomosis of various portions of digestive tract its field of utility has been great.

Speaking of intestinal anastomosis, Senn's plates deserve mention, as reports of cases successfully treated by them are constantly appearing in the journals. We will pass from this very imperfect report of the present state of gall-bladder surgery to what seems to be a most excellent operation for gastrostomy, known as Witzell's method.

Its advantage over other operations is the prevention of leakage through the gastric fistula. The principle of the operation is this:

After cutting through the tissues down to the stomach, the anterior wall of this organ is pulled out of the wound. Opened near the lesser curvature by an incision of one-fourth of an inch in length, a piece of rubber tubing two feet long is on hand, about one inch of which is slipped into the stomach through the wound, which it accurately plugs. This tube is now secured in position and a species of artificial œsophagus formed. This is done by raising a fold of stomach on each side of rubber tube with a series of interrupted Lembert sutures, on tightening which the tube is buried for about two inches of its length in the gastric folds. You can now put food into the stomach through the other end of the tube. Should the œsophagus again

regain its function, as in cicatricial structure, the tube can be withdrawn without any after leakage and the fistula rapidly heals.

This lifting up of tissue around the tube as described, forms a kind of valve something like the ileo cæcal, which makes an efficient valvular defence against the outflow of gastric contents. Autopsies made several months after operation prove this fact.

Dr. Laughinghouse supplemented his paper with a verbal report of an operation for stone in the bladder. A little boy, about 11 years old, had come into his office suffering from retention of urine. On trying to insert the catheter it was found that an obstruction prevented. The stone seemed to be about the size of an egg. With the assistance of Drs. O'Hagan, Morgan and Brown he opened the bladder by a suprabubic operation and removed two stones and thought that everything had been removed, but, upon attempting to again insert the catheter, to their chagrin they found that it was not to be passed and that the same obstruction remained. The stone was so entirely encysted by the tissues that it had to be removed in pieces. The bladder was damaged badly and the incision made was rugged and it was feared that the patient would die from the shock or from peritonitis, but in a few days he was free from fever and did nicely with the exception of a purulent cystitis, and got well.

DISCUSSION.

Dr. Keen said he was very much interested in this paper. In trephining it was said that we must always think we have the thinnest possible skull. This quotation seemed indicative of the great fear that used to exist of wounding the membranes of the brain, and, while that might well exist in the days before antiseptic treatment, when a wound of the brain was so dangerous to the patient, in these days we have changed from all that. The introduction of antiseptic methods and the introduction of the flap method, instead of the old crucial incisions, have changed the whole aspect of intracranial surgery, and he did not hesitate to say, and he thought it would meet the approval of all present, that the brain should be treated with absolutely the same indifference that any other part of the body is treated; that incisions should be made with just as much readiness and the skull opened exactly as if it were any other part of the body. If pus collects in the abdominal cavity any surgeon would open the cavity in order to get it out, and there is no reason why the head should not be opened to let out pus, or for the removal of a tumor. The day is past when the brain was regarded as a land which must not be explored. He supposed that the commonest of all conditions that require the interference of the surgeon to-day in connection with the skull is fracture of the skull. In his day, as a student, it was thought that fractures of the skull ought to be almost absolutely let alone; but to-day, in fractures of the skull, no hesitation is had to trephining and

lifting up the scalp. Trephining, it must be remembered, is nothing more than making an incision in the soft parts. The saw is used instead of the knife because the bone is hard instead of soft like the flesh. Where is the man who, if there was a case of suppuration of the femur or tibia, would not trephine the femur and tibia and let the pus out? In the skull exactly the same conditions require the same treatment. In fact, there was vastly greater need for an incision in the skull than in the soft parts, for the pus would probably be able to get out anywhere else than in the skull—in the thigh or forearm it could probably work its way out, but in the skull it is almost an impossibility physically, and therefore it is the duty of the surgeon absolutely in these cases to open the skull, let out the pus and to lift up the depressed fragments of the bone lest they should produce eventually suppuration, meningitis or epilepsy. A compound fracture and a simple fracture are exactly on the same level. A man who uses absolute asepsis or antisepsis can explore a simple fracture with but slight danger. Sometimes the best surgeon meets with a misfortune; but the danger of doing so compared with the danger of letting the patient alone, is as nothing. It must be remembered that fractures through the orbit, through the base of the skull, through the mouth, through the nose or through the ear, when the membrani tympani is ruptured, are just as truly compound fracture as a fracture of the vault that can be seen, and are even more dangerous because they are hidden. The most complete asepsis must be used as can be had. It is true that the mouth or the nose cannot be absolutely disinfected. But just as in ordinary drugs the effect is in the proportion to the dose given, so in a compound fracture the effect is in proportion to the dose of septic bacteria. As nearly absolute asepsis must be obtained as possible, and the results will be very much better. In fact, the whole aspect of the subject has been changed since the introduction of aseptic methods. In the mouth and nose the solutions of mercury or carbolic acid that would be used elsewhere in the body cannot be used, but thorough cleansing with a normal salt solution can be done. This will remove a great deal of gross dirt and very much of the infected material. This is to be followed with boric acid solutions. Thus a comparative asepsis will be obtained that would be followed in many severe cases by recovery.

Another subject of a great deal of interest in this connection, of which Dr. Laughinghouse spoke, was that of hemorrhage. In this the localization is very important. There are a great number of cases now on record in which a man having received a blow on the head has been stunned by the blow or fall for a time, and then recovered for a time his consciousness, which may last for a few hours or days, and in some cases even a few weeks, and then he relapses into a second state of unconsciousness. It must not be understood that this occurs only in cases of fracture. He had seen recently two cases in which there was absolutely no fracture. A blow on the head had caused unconsciousness for a time followed by a period of consciousness and

then by a secondary unconsciousness. Now, this might be caused by the rupture of the middle meningeal artery. If the main trunk is ruptured or multiple small ruptures exist, there will be a large amount of blood effused very rapidly, and of course the symptoms of pressure will come quickly. It may be a small rupture that produces such an effect. The man is stunned by the blow, an artery is ruptured, a small amount of blood is poured out, which gradually accumulates, the patient being, however, conscious in the meanwhile; but when the clot has become large enough to produce pressure, the secondary unconsciousness comes on. In such cases trephining is our plain duty, and it should be done as soon as the diagnosis is made; if not, the patient will die in the vast majority of cases. There are 68 per cent. recorded of deaths without trephining and only 33 per cent. with trephining.

After the determination to trephine the question is as to the localization, which is of great importance to us. It is not always necessary to trephine on the same side of the skull that has received the blow or the cut, but it is often necessary to trephine on the opposite side. He related a case brought into the hospital a few years ago. The man had fallen on his head from a hay-loft and had two wounds in the scalp, one directly in the middle line and one a little to the left over the parietal bone. He was unconscious, and in that case he never recovered consciousness, because there were four ruptures and the blood had poured out so rapidly that there was not time for him to become conscious from the stunning before the secondary unconsciousness caused by the flow of the blood had come on. There was no need to use chloroform on account of his already being unconscious. He made an incision at both of these lacerated wounds, uncovered the skull and found no fracture at either point. The man was lying there perfectly relaxed, not moving hand or foot, and he concluded that there could be but one cause that produced such profound and persistent unconsciousness, namely, a rupture of the middle meningeal artery. The patient did not move either arm or leg, and therefore he could not tell whether the right or the left side was paralyzed. On examining the pupils, however, both of which were sluggish, he found the sluggishness of the left pupil somewhat more marked than that of the right. He concluded to trephine on the left side, and if the clot was not found then, to seek for it on the right. He trephined on the left side $1\frac{1}{4}$ inches from the external angular process on a line with the eye-brow. The instant the skull was opened an enormous clot of blood began to ooze out, and he found two ruptures in the anterior branch of the middle meningeal artery. The clot was very large, and on removing it he found the artery still bleeding; he therefore concluded that the posterior branch was ruptured as well, and he trephined the man a second time, finding two ruptures in the posterior branch. This case he brought before the Society, not because the man got well, for he did not, but because of the diagnosis, for, after all, most of us know what to do when the diagnosis is established.

He said that in his opinion diagnosis was far more important to teach than the treatment, because the treatment could be had from any text-book. He had performed not very long ago an operation for the removal of the gasserian ganglion in a case of *tic douloureux*. He had chiseled through the external table. Right at this point he desired to say that the chisel should not be used, but the *osteotome*, because its being wedge-shaped renders it unlikely that the end will be driven farther in than one wishes, while the chisel can go to any depth. He was very careful about striking the blows in the above-mentioned operation, but the chisel was driven into the brain to the depth of an inch. Instantly a furious gush of blood followed, showing that he had cut the posterior branch of the middle meningeal artery, and he had not yet turned down the flap. He rapidly loosened the rest of the flap, and on turning it down he found, to his dismay, that the anterior branch of the middle meningeal was also ruptured, because it went through in a canal in the anterior inferior angle of the parietal bone. He put two fingers on the ruptured arteries until he could get a curved Hagedorn needle. An assistant controlled the anterior branch and he encircled the posterior branch and then the anterior with a ligature. He was glad to say that the patient made an uneventful recovery in spite of the great loss of blood he had from this untoward accident.

Dr. Bahnson described three of the last five cases in trephining that had occurred in his practice. The first was for a slightly penetrating wound, the result of a blow on the left of the middle line over the parietal bone. The boy was about 21, and he informed the physician that he had not been stunned and did not feel sick in any way. He had walked home, a mile or two, and sent for a physician. Nothing of moment occurred, and he seemed so well that the physician left him until the following evening. The only thing that the young fellow complained of was a paralysis of the flexors of the right forearm, and, with the exception of a very small puncture in the skin, there was nothing to be felt. An opening not exceeding one-third of an inch in diameter was made in the skull and a wedge-shaped spicule of bone was found driven down upon the dura mater. It was necessary to enlarge the opening in order to get it loose from its attachments. There were no brain symptoms, only localized paralysis. He entertained no doubt but that he would have suffered from it had it not been attended to.

The second was that of a child, who fell from a loft, striking on her head. She was semi-conscious and sometimes uttered a word or two in a far-off kind of way. There was no involuntary action of the bladder and paralysis of the sphincter muscle, and no nausea or anything of that kind. There had elapsed three or four days, and, on account of the general sluggishness of the patient, they decided to operate. A very large clot of blood was found under the scalp on top of the head, with a fracture parallel with the middle line of about three inches—nothing else; no depression, absolutely none.

But they decided to cut through, and there was found an immense clot of blood between the dura mater and the skull, which was removed with the finger. The pressure being removed, the child made a perfect recovery, and is well to-day.

The third case was a young boy who had been struck by the hoof of a horse and no external wound, even, could be discovered. The boy was bright and lively, but on palpation a slight depression was noticed. An incision was made, knowing that it could do no harm, and a slight depression was found in the outer table. He trephined alongside the depression, intending to raise up the fractured spot, and to their surprise they found enough of the internal table broken and split in every direction to cover the palm of the hand, some sticking straight down and pressing upon the dura mater. It was an extensive fracture. The little fellow could not be kept in the house and was soon well.

He wished Dr. Keen to emphasize several points—that it is a manifest duty, whether there be an external opening through the scalp or not, in a case of brain injury, to cut down and make an ocular examination of the skull. If he finds a fracture without a depression it would probably be a matter to wait upon; if there is the slightest evidence of any, if there are any brain symptoms, or local paralysis, or any conditions which might be caused from pressure due to the effusion of blood, he ought to trephine forthwith, and not to treat it as heretofore; also that it is very hard to injure the membranes of the brain with reasonable care in operating; it would be very difficult to injure even a sinus; and with ordinary care there is nothing for a man to dread in trephining. It is better to go into the scalp and relieve the brain than to wait until it might be too late to do any good by the investigation.

In answer to Dr. Bahnson, Dr. Keen said that he especially commended what Dr. Bahnson had said in reference to operations of the brain. No surgeon who will take care as to antiseptic methods and will shave the head and disinfect it thoroughly, need be afraid of an incision through the scalp. He had seen case after case which from the want of such an incision the fracture had been overlooked. The only way to do is to cut down and find out when we do not know, and with strict asepsis no harm is done. If there be a fracture it is of the utmost importance that it should be known as early as possible. He agreed with Dr. Bahnson mostly in reference to the method of trephining. A surgeon ought to be careful when trephining, but with the ordinary care of the ordinary surgeon he did not believe that there was danger of wounding the dura. Should the instrument go into the dura, it is not at all necessarily a vital point. Of course no one should trephine over a sinus if he can get alongside of it. He always got as far away from the sinus as possible, but if necessary he would not hesitate to go near it or even over it. He had in several instances trephined near the sinus and separated

the dura until the whole of the sinus was free from the skull for several inches.

If we wait to trephine until symptoms occur, infection has probably already taken place. He operated as early as he could in all cases. He thought that in certain cases no one could absolutely determine the existence of a fracture or fissure—it can simply be suspected. If he found a fracture with brain symptoms, or even a fracture without cerebral symptoms in which there was much depression, he would certainly make an incision through the scalp.

Dr. Hodges desired to express his interest in the subject, and to call the attention of the Society to cerebral surgery in its relation to traumatic epilepsy, and desired to ask the Society to bear the subject in mind during the year, and, if occasion should present itself, to operate and let the world know the result. As all know, it is occupying a prominent position in the profession.

He was glad to see Dr. Keen present, and said that he had had the pleasure of seeing one of his cases of this character very recently. He himself had operated upon five cases of traumatic epilepsy with the hope of curing them. He considered this treatment as worthy of the attention of physicians and surgeons everywhere. He was sure that all could do the operation as recommended by Dr. Keen, though it was another question about going down into the cerebral mass, though that was indicated at times.

The five cases presumably due to traumatism upon which he had operated during the past year had given him great cause for encouragement. While he knew the statistics on this subject, still he believed that there are great hopes along this line, and he was especially desirous that the surgeons of this Society, when they have cases of epilepsy probably due to traumatic injury of any kind, will investigate and see what can be done.

He mentioned one of the five cases in order to show that, although the time of injury had been very distant, still there are hopes of recovery. This man was fifty-six years old when operated upon. He was in the late war, and in the third days' fight at Chancellorsville a ball struck him in the head and he fell unconscious, and the battle and the subsequent events were of no importance to him, as he recollected nothing afterwards. For a time his mental faculties were disturbed and one year from the injury he commenced having epilepsy, and up to several months ago had had epileptic fits almost constantly. He was operated on simply with the possible hope that the epileptic attacks might be checked. Only a slight injury was found on the internal table, but the patient was so relieved that he has only had three attacks since. On the afternoon of the second day after the operation the man began to recall the scene of the battle which he had been in.

Dr. Hodges said that if he had not related it with so vivid an interest and taken such pleasure in narrating it to him, he would not have believed but that the man had remembered it before and was faking. It had been blotted

from the man's mind for all those years. The man is now at work for the first time in ten years. Trephining for epilepsy offers great hopes, in his opinion, for the future, as a source of the removal of at least some of the causes of this disease, especially where it is possibly due to traumatism.

Of these five cases operated upon, three have been benefited and two have not; but that seemed to him some index of what might be expected in the future.

Dr. Murphy related a case that was brought to the State Hospital in Stanton, Virginia, when he was a physician there. It was a case of depression on the side of the head, and they started to trephine. The bone was removed and there was no evidence of any pressure on the internal table. About that time politics got into the Institution and the administration was removed before the man recovered from the operation. After the new administration came in he was so much improved that he was discharged as recovered. He went home and remained several months and killed his wife and two children and was immediately returned to the Institution. In a discussion in the American Medical and Surgical Association on this subject, a number of cases were given, and to his recollection there was not a single successful case, and that has given it such a backset among societies and hospitals that it is no longer practiced. He did not remember the particular matter for which trephining was done in any case, but he knew that the result was the same in all. There was no permanent benefit. All his cases were in insane patients.

He did not wish to discourage anyone in regard to trephining. His experience had been limited.

Good common-sense is the greatest qualification in the practice of medicine. Engraft upon this a medical and surgical knowledge of disease, and mistakes will be infrequent. If rectal trouble of a decided type exists, before operating it should be determined that disease of a more serious nature does not exist. It would be very foolish and unsurgical to operate upon a person for hemorrhoids, who also had a cancer in the upper rectum. To operate for fistula in ano in a patient who also had stricture in the rectum would do but little good if the stricture was not first attended to. The man who does rectal surgery should by all means have served his time as a general practitioner, and he certainly should be acquainted with general surgery.—*Mathews' Medical Quarterly.*

GUM BOIL.—A periodontitis may frequently be aborted by painting the inflamed gums several times a day with a mixture of tincture of iodine and tincture of aconite, one drachm each, and chloroform and tincture of benzoin, each fifteen minims.—*Practitioner.*

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

August 13, 1895.

Dr. V. W. Harrison, First Vice-President, in the Chair.

Dr. Landon B. Edwards read a paper on the Diagnosis, Special and Differential, of Cholelithiasis. Stone may sometimes be formed in the liver itself. The position of the gall-bladder varies with that of the liver. It can be recognized by palpation. Cholelithiasis is rare in children under 12 years of age, becoming more frequent as age advances, and being more common over 30, and in women. It is comparatively frequent in the insane.

The characteristic symptoms suggesting gall-stone are, multipara seized with a grinding pain radiating over the whole body. There are perspiration, retching, vomiting, dyspnœa, pulse lessened in volume, expression of pain, no rise in temperature. The symptoms do not intermit, and pain is not relieved unless the stone passes. It lasts two or three days and leaves soreness. Ease is brought about through a form of pressure paralysis. Jaundice is not always present, but may occur gradually from occlusion. Mahogany urine may be present. The flow of bile being prevented, the skin becomes darker and darker, vomiting ceases to be bilious, stools become pasty and distension of the gall-bladder by mucus may occur, simulating floating or displaced kidney.

Cholelithiasis is diagnosed from *malaria* by the mild fever, scarcely jaundiced hue, chills, etc.

From catheterization.—The chills may become rigors, the fever rises, pulse slow—40 to 50—irregular and not in keeping with the fever.

Tumors, especially malignant pancreatic, and pancreatic stone.—Hemorrhages from the stomach, bowels, etc., obstruction from the common duct, damming of the fluid in the gall-bladder and ducts, producing jaundice. Indigestion of fat is present in pancreatic troubles.

Empyema of the gall-bladder, by the history of chills, fever, etc., with liver trouble.

Adhesions of the gall-bladder may so form as to cause discharge of bile into the duodenum direct, and there may be no suspicion of stone.

Symptoms of typhoid and other fevers and of malignant and benignant tumors are simulated by stone.

It is said that when the stone passes from the cystic to the common duct, pain is lessened, and as soon as the passage occurs, mucus begins to be dammed into the body of the liver, causing its enlargement. This is diagnosed from *hepatitis* by less pain in the latter.

Heredity may lead to differentiation of stone. It is seldom that repetitions of hepatic colic do not occur.

Operations for removal should not be performed unless the typical symptoms are present. Cases occur more frequently than is supposed giving rise to symptoms elsewhere.

There is no medical treatment efficient for the disintegration or removal of gall-stone. The indication is to relieve pain, and for this the best agent is by far hyoscyamine.

DISCUSSION.

Dr. Hugh M. Taylor quoted Robson, who lays stress on the characteristic suddenness of the paroxysmal pain. Vomiting may be continuous or paroxysmal. In some instances pain is referred to the left shoulder; often, above the umbilicus, differing from that of appendicitis. Subsequent attacks may be from the same stone. The direction of growth of the tumor is diagnostic, being obliquely toward the umbilicus. It may be enormous, sometimes, then, being mistaken for ovarian tumor. Distension of the gall-bladder without jaundice, means obstruction of the cystic duct, as by enlarged gland stricture of stone. Sometimes a diagnosis may be made by the presence of stone in the fæces. Hemorrhage, when present, is due to poisoning incident to cholæmia. In this latter we have continuous jaundice, which means neoplasm of the duct, or head of the pancreas. Stone, by its change of position, etc., will allow the escape of some bile, jaundice accompanying it being thus intermittent.

The question of peritonitis is important. A stone near the papilla is a foreign body, and as such it irritates and leads to the establishment of peritonitis, which may become purulent. Chills, fever, sweats, etc., occur here. Inflammation may result in perforation of the gall tract, setting up peritonitis thus. From malaria differentiation is sometimes impossible. Dr. Taylor said he could recall cases in his own practice in which diagnose was only made by the autopsy.

Solvents are myths, and the only medical indication is to relieve pain.

Dr. J. S. Wellford reported two cases of cholelithiasis. Most cases, said he, of gout commence with violent pain, especially in the right hypocondriac region, and this should be borne in mind in diagnosing gall-stone and appendicitis.

WINTER COUGH.—*Lippia mexicana* is almost a specific in the hoarse, barking winter cough without secretion, so common in northern climates.—*N. Y. Medical Times*.

Selected Papers.

THE TREATMENT OF TYPHOID FEVER BY GUAIACOL.

BY A. P. HULL, M.D., Montgomery, Pa.

That typhoid fever is so universal that it usually attacks persons in the prime of life, endowed with the powers of resistance against disease, and yet with a mortality too high to be satisfactory, is the excuse I have to offer for reading a paper before the Society on a subject so threadbare as this. The symptoms require no description; the question of burning interest to us is, What can we do to reduce the mortality?

During the months of September, October, November and December, 1894, and January and February, 1895, I had under treatment 32 cases of typhoid fever, and in a majority of these cases used a plan of treatment that was so entirely satisfactory that the results seem to justify reporting. These cases were not confined to any one locality, but scattered through a village and over a valley of considerable extent. While we have sporadic cases of typhoid fever every year in this valley, about every decade, especially after a very dry season, we have an endemic like this, until the disease has become a curse and dread to the people of this community.

If typhoid fever can be almost blotted out by having an uncontaminated supply of drinking-water, as is claimed in some European cities, then the water in the rural districts must contain the bacillus typhosus, although examinations very often give negative results.

The first 11 cases were treated medicinally with nitrate of silver and quinine, given continuously from the beginning to the end of the disease. Of these 11 cases 2 died.

Having 2 cases just beginning in the family of Mr. T., whose son had died, I decided to treat them with guaiacol internally and externally.

These 2 cases, with all the others following—19 in number—were treated with guaiacol internally and externally, and an occasional $\frac{1}{16}$ grain dose of calomel, three or four times a day, until slight purgation took place, when it was stopped, but resumed again, unless the patient had three or four loose passages every twenty-four hours. Along with this the bowels were frequently washed out with large douches of warm, soapy water, or, if the fever was high, cool water, which was always agreeable and gave comfort to the patient. The guaiacol was given in from $\frac{1}{2}$ - to $1\frac{1}{2}$ -drop doses every two hours, according to the tolerance of the patient for the drug night and day. The temperature was controlled by the external application of guaiacol and cold sponging. The external application of guaiacol will lower the temperature in about thirty minutes, and is preferable to the cold bath, as it is

equally efficacious and can be applied where the latter is not practicable. The effects will last from three to four hours, but the amount should be small at first (from 5 to 10 drops), and gradually increased, as it is liable to give the patient a chill. The largest dose used at any one time was 20 drops. As in the case of any other drug, one person may require more than another, but patients become susceptible to its influence and the effects are greater with each application.

Outside of the chills, which occurred with the larger applications, I observed no deleterious effects from its use. The chills can be avoided by a careful application of the drug, the temperature not being reduced below 100° F. The drug was applied over the abdomen, which was first washed with soap and water and dried. The guaiacol was then slowly dropped on the parts, carefully rubbed in, and covered with oiled silk.

The shortest duration of any one of these cases was fourteen days, the longest twenty-four, and the average between nineteen and twenty days.

I have always been well satisfied heretofore to see typhoid patients get rid of the fever in twenty-eight days, and many of them, even uncomplicated cases, still later; therefore the early convalescence in these cases—the gain of a week—was not due to accident.

The diet was the usual liquid diet—meat broths and milk, the latter generally diluted. Stimulants were used when indicated, but were not required to any great extent. The highest temperature reached was 105.4° F., and most of these patients, at some time during the disease, reached a temperature of 104° F., thus showing the fever to have been of some severity.

Convalescence was most rapid in the cases where treatment was most promptly applied.

Now, I realize that this number of cases is not large enough to demonstrate anything positive or to draw any absolute conclusion in regard to the treatment of typhoid fever, as you might have this same number of cases and give them very little, if any, medicine, and they would all get well; yet these patients, during an endemic that was sufficiently virulent, all recovered so much better and earlier than any same number treated before, being practically well a week after the fever had left them, that it was evidence to my mind that the guaiacol had some value in modifying and cutting short the disease.

Many of the symptoms that the 11 cases before had, and that we usually have, were slight, or, perhaps, entirely absent. Tympanites and delirium were rare. The tongue was generally moist, and the diarrhœa did not assume that uncontrollable character so often found.

That typhoid fever is caused by a specific germ—the *bacillus typhosus*—is now admitted, though their presence is sometimes hard to prove. The activity and life of this bacillus end at the latter part of the second week from the initial symptoms of the disease; but about this time the necrotic

and sloughing process of the mucous membrane and Peyer's glands takes place, leaving what is equivalent to an open wound in the intestinal tract.

From this time on the symptoms are kept up by putrefactive bacteria, especially the *bacillus coli communis*, which becomes virulent during the latter stages of the disease.

We cannot put each one of the open wounds in an aseptic condition, as a surgeon would do, but we can, I think, make the intestinal tract less habitable for micro-organisms, and the clinical history of these cases seems to me to prove the anti-fermentative action of guaiacol and other antiseptics in the intestines.

The phenol group undoubtedly occupy the first rank as germ destroyers and germ poison neutralizers outside of the body, and during absorption, as they are never found free in the blood, and combine with albuminous substances, especially with the most reactive of these, the toxic albumins, the products of microbic life, forming compounds, probably non-toxic. They undergo rapid oxidation in the system, and can be found in the urine. They, therefore, would not only destroy the disease germ in the intestinal tract, but would effect a rapid elimination of the toxic albumins from the system.

From my observations in these cases the following conclusions seem justified:

1. That the antiseptic treatment of typhoid fever is a rational treatment.
2. That guaiacol is a safe remedy in typhoid fever, and prevents the toxin poisoning of the later stages due to the *bacillus coli communis* and other putrefactive germs in the intestine.
3. That guaiacol will lower the temperature in typhoid fever, when applied externally, and, with ordinary care, can be used with safety.
4. That typhoid patients do better by keeping the bowels acting up to a certain point, rather than checking them, and will derive comfort and benefit from daily douching of the large intestine with warm or cool water.—*Therapeutic Gazette*.

MORPHINE HYPODERMATICALLY.—It is necessary, after giving a hypodermatic injection of morphine, to maintain perfect silence in the room where the patient is lying. Morphine, far from suppressing sensitiveness, like chloroform, rather tends to exalt the excitability, and particularly the liability to disturbance from slight noises. The failure of morphine injections to produce sleep is, in the majority of instances, due to neglect of this simple precaution.—*Lyon Medicale*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

Bicycle Riding.

This mode of locomotion, which was started a few years ago as a pure and simple sport, has been rapidly developed into a necessity to the public—not that we *could* not do without the bicycle, for as we did without it once, so we can again—but it is a necessity in the same sense as the telephone and other such inventions. From the old-time buggy-wheel affair, with its wooden spokes and iron tire, which rattled down the streets like a run-a-way express wagon, the wheel has passed through the several stages of evolution until it has attained the high degree of perfection we see in the modern spider-web wheel, with its ball bearings and pneumatic tires,

which enable the rider to spin along at a rate of twelve or fifteen miles an hour without jar or noise and with a minimum of exertion.

Is it any wonder that the desire to mount the silent steed has swept over the land like a great tidal wave until it has seized upon all classes and conditions of people? The old man and the matron, the young man and the maid, the rich and the poor, the high and the low, the professional man and the laborer, the healthy and the sick, we see them all spinning along the streets and boulevards of the city and along the pikes and by-paths of the rural districts, casting aside all care and worry, drinking in the life-giving oxygen, their faces radiant with pleasure, as they enjoy

what may well be called the poetry of motion.

Numerous articles have appeared from time to time in the medical and lay papers, some of which seem to us to have been written from a prejudiced standpoint. In view of the wonderful popularity of the wheel, it is but right that its effects on the people should be considered. How will it affect the health and the morals of those who ride? As physicians we are bound to give attention to the former. It is the tendency of modern civilization to exercise the brain and not the body. The business man boards a crowded car and rides to his office, where he keeps himself confined until it is time to leave for home; the women pass days at a time in ill-ventilated houses, the atmosphere of which is contaminated by sewer gas, and when they do go out wrap themselves in furs and ride in close carriages, if it be winter, and imagine they are taking exercise! With such sedentary habits is it any wonder that nervous and digestive troubles are so common? Men join gymnasiums and women physical culture classes, but they soon look upon this as an irksome duty and abandon it. Walking has but little attraction. Something is needed to draw these people into the open air, and from personal experience we know of no form of exercise so gentle, so universal and so peculiarly attractive as bicycling. The opposers of the exercise may be answered, we feel convinced, by the assertion that it is the abuse, and not the use, of the bicycle which causes injury. The person who wishes to ride should find

out from some one qualified to judge, what would be the abuse of the wheel in his particular case, and then should avoid that abuse. The extreme stooped position is an abuse with all riders, and is unnecessary even in hill-climbing. All speed of over eight miles an hour may be an abuse with one rider, while a fifteen-mile gait may not be with another. One may safely ride twenty-five or thirty miles, while another should not ride more than five or six, or even two, without resting. Each rider must have rules for himself. It would be an abuse of the wheel for some persons to attempt to ride at all. Let the bicycle be ridden as it should be and it will do good to the healthy and to the invalid.

There is no more reason against a woman's riding a bicycle than against her swimming. From an anatomical standpoint, it would be better adapted to women than to men. From the standpoint of experience there is every reason for her indulging in the sport. Dr. Charles R. Townsend has studied the effect of the bicycle upon women based upon the experience and statements of eighteen lady riders and physicians. His conclusions are "that bicycling is beneficial to women, not from any special effect upon the pelvic organs, but because it is an agreeable, healthful form of exercise in the open air, a form which exercises the whole body, and indirectly benefits special conditions. And the converse of this holds true, that, as a general exercise, bicycling is not hurtful to the pelvic organs, even when these are affected, unless the disease is so acute

that any exercise as great as this is contraindicated."

Prizes.

Members of the Society will bear in mind that there are two prizes offered, neither of which has been awarded as yet.

The Duffy Prize is Fifty Dollars, by Dr. Francis Duffy, of Newbern. There has been a change in the conditions governing this prize which we give in Dr. Duffy's own language, to wit: "Fifty Dollars for the best article on *any subject pertaining to medicine*, of such a character as to advance our knowledge of useful facts not hitherto published. This may embrace either original observation of the writer, experimental or otherwise, or the presentation of well-known facts in such relation as by analogy or logical inference to lead to new and useful conclusions."

The North Carolina Medical Journal Prize is Fifty Dollars, offered by the Editor of this JOURNAL for the best

essay on the History of Medicine and Surgery in North Carolina. This is a difficult subject to do justice to, we know, for there are few published data to build from. There is one particular characteristic that has always belonged to the profession of this State, that of keeping their work and their thought to themselves. It is this that makes it so hard now to ascertain just what North Carolina has done in advancing the practice of medicine and surgery, and it is this lack of zeal and concern for the honor of the State Profession that this JOURNAL is so desirous of overcoming.

We hope that worthy essays upon both subjects may be presented at the next meeting of the Society in Winston, and that the men of the present generation will present their work through the columns of the JOURNAL that the world may know of it and that some future historian may have some data upon which to work when he desires to write a History of Medicine and Surgery in North Carolina.

Reviews and Book Notices.

The Care of the Baby. A Manual for Mothers and Nurses, Containing Practical Directions for the Management of Infancy and Childhood in Health and in Disease. By J. P. Croger Griffith, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, etc., etc. Octavo, pages, 392, cloth. Price \$1.50. W. B. Saunders, Philadelphia, 1895.

Many of the diseases and much of the mortality of infancy and child-

hood are due to a lack of care of the baby, either through negligence or lack of knowledge on the part of the mother. The doctor gives a few general directions in regard to rearing the child, and the mother soon forgets what he said and follows the rules of tradition and goes to the advertisements in the daily papers for advice. How much better if she is provided with a reliable book written

in a style she can understand, and which gives her detailed instruction in regard to the daily management of her baby. Such a book we have before us. There is much in it a mother should not attempt to make use of, except under the direction of a physician, but the subjects of hygiene and diet are clearly discussed and will be of much service to mothers. We would advise them to secure the volume and study well its teaching.

A Guide to the Aseptic Treatment of Wounds. By Dr. C. Schimmelbusch, Atsistant in the Royal Surgtcal Clinic of the University of Berlin. Preface by Professor E. von Bergmann. Translated from the Second Revised German Edition by Frank J. Thornbury, M.D., Lecturer on Bacteriology University of Buffalo, N. Y. With forty-three illustrations. G. P. Putnam's Sons, New York and London, 1895.

We have in Dr. Schimmelbusch's book a satisfactory and very thorough

discussion of the subject of antiseptis. Methods of disinfection of nurses, patient and physician, and the sterilization of dressings and instruments are described in detail. The technique of an aseptic operation in the von Bergmann Clinic is described, and does not differ materially from that in the hospitals in this country. It is an instructive work and is safe to follow.

HÆMORRHOIDAL DISEASE.—The form of piles characterized by sessile granulations which bleed easily, is best treated by the very old method of applying nitric acid. Introduce a speculum, dry the parts with gauze and touch the whole granular surface again and again with a bit of cotton moistened with the acid, but containing so little that it will not run over the parts not diseased.—*Medical Brief.*

Abstracts.

THE PARASITE OF MALARIA.—This was the subject of the last Hunterian Oration, delivered by Dr. P. Manson, who has had a large experience of tropical diseases in China. Malaria is in the aggregate more destructive than tubercle, and claims six times as many victims as cholera. The specific organism of the disease was discovered by Laveran about fourteen years ago. It is polymorphic, occurring in the blood in very numerous and varied forms, most if not all of which may be classified under certain

leading types: (1) free spores and free sporulating bodies, often having the outline of a diverging rosette; (2) small unpigmented spi- and intra-corpuseular bodies; (3) large pigmented intra-corpuseular bodies; (4) intra-corpuseular rosette bodies; (5) crescentic bodies; (6) various forms derived from those already mentioned; (7) flagellated bodies and free flagella; (8) bodies which are probably degenerate stages of some of those already enumerated; (9) pigmented leucocytes. These are

phagocytes which have ingested the particles of pigment set free when the rosette body falls to pieces and this process of pigment inclusion can often be witnessed. All these various bodies are but different stages in the life of a sporozoon. The best explanation of their mutual relationship is that supplied by Golgi, who considers that the free spores are the first stage, and that they, invading the red-corpuscles and nourishing themselves on the hæmoglobin, grow into the larger pigmented intra-corpuscular forms. After a time these segment and become the rosette bodies, which presently fall to pieces and liberate spores, to start a new generation. The flagellate bodies originate either (1) from certain of the large intra-corpuscular pigmented bodies, which, having escaped from the corpuscles, after a time throw out flagella; or (2) from the crescentic bodies which can be often seen under the microscope to change into oval and spherical bodies, and finally to throw out flagella. There are believed to be at least two leading types of the malaria organism, the benign and the malignant, differing both in their figure and in their pathological effects. The former never give rise to the fatal pernicious fevers, but only to the mild tertians, quartans and double tertians, called quotidian; found both in temperate and in warm climates. It appears in the peripheral circulation in all its stages of small intra-corpuscular amœboid body, large pigmented form, rosette and flagellated body. The malignant forms produce the dangerous remittents, quotidians and tertians of warm

climates. They appear in the peripheral circulation chiefly (and sometimes only) as the small spi- or intra-corpuscular non-pigmented form and are frequently ring-shaped. The rosette or sporulating bodies, and the pigmented intra-corpuscular bodies of the malignant type are very rarely obtained from finger-blood. These stages of this type are passed in certain viscera, such as the spleen, brain, etc., and the organisms can be obtained by aspirating blood from the spleen at the beginning of a febrile rigor. The special virulence of this type seems to depend on its habit of accumulating in the viscera quite as much as on the pyrogenetic toxine which it is supposed to liberate. A principal and characteristic feature of the malignant parasite is the crescent-shaped body, a form which is usually present in the finger-blood when the infection is of some standing, and especially when cachexia is marked.—*Lancet*.

CONSTIPATION, BIG-BELLY, AND DILATATION AND HYPERTROPHY OF THE INTESTINE.—In an infant improperly fed the abdomen becomes distended by flatulence; the belly is tense; the attack ends, as a rule, in diarrhœa, and the belly subsides. But after two or three such attacks the subsidence is not complete, and the belly remains big, tumid and flaccid. Marian (*Rev. des Mal. de l'Enf.* February, 1895) believes that the condition is due to a chronic gastro-enteritis, and that the bigness of the belly is produced by an actual overgrowth in length of the intestines rather than by mere distension of the

stomach. The colon is usually much distended, covering up the stomach, but the small intestine may not be notably dilated after death, and, as a matter of clinical observation, the abdomen does not give the sensation of coils of intestine distended by flatus, but rather of a bag of big worms. Dilatation of the colon is found also in those cases of obstinate constipation, which are associated apparently with a slight malformation of the sigmoid flexure. This is an extra length and extra folding within the pelvis, to which Jacobi has called particular attention on many occasions, and last in his address before the International Medical Congress at Rome. Marfan (*ibid.*, April, 1895) has republished some drawings from the cadaver made by Bourcart for a Paris *Thèse*, 1863. The normal arrangement appears to be as follows: The descending colon, when it enters the iliac fossa, bends so as to reach the left sacro-iliac articulation; it then crosses more or less of the cavity of the pelvis from left to right, and finally bends backwards, downwards and inwards to open into the rectum. Bourcart distinguished three types of abnormality—(i.) the ascending, in which a coil rises upwards out of the pelvis; (ii.) the transverse, in which the natural coil across the pelvis is exaggerated so that two sharp kinks are produced; and (iii.) the descending, in which the colon passes down deeply into the pelvis and then ascends, finally doubling downwards again to open into the rectum, thus producing two sharp kinks. When one or other of these abnormalities exists, the fæces are retarded, the

more fluid parts are absorbed and the fæces rendered hard. Such children may pass only small rounded masses, "like marbles," or large fæcal masses, "like a grown-up person." The pain of passing these motions, which is often aggravated by the existence of fissures and excoriations of the anus, causes the child to refrain from yielding to the desire to pass a motion, and the constipation is thus made worse. When the fæces accumulate into small, marble-like masses, they appear to determine with great readiness a colitis, which causes tenesmus and a frequent passage of small quantities of mucus, a condition which may be called diarrhœa by the mother. Marfan suggests that the chronic obstruction of the sigmoid may result ultimately in the enormous dilatation of the large intestine which has been described under the name of hypertrophy of the colon. Careful attention to diet, to ensure adequate digestion and absorption, and the systematic use of small enemata, appears to be the best form of treatment.—*Practitioner.*

INFECTIVE ULCERS OF THE CORNEA AND THEIR TREATMENT.—It has recently been claimed that subconjunctival injection of mercurial sublimate will arrest many infective processes in the eye. Bach, from a number of carefully conducted experiments, concludes that this claim cannot be substantiated with regard to infective ulcers (hypopyon ulcers, serpiginous ulcers). He produced such ulcers in both eyes in a large number of rabbits by inoculating the cornea with staphylococcus. One

eye was then treated by injection and the other by ordinary means; he found that the healing of the ulcer was actually retarded by the mercurial injections. By other experiments the author shows that, contrary to the opinion generally held, the contents of the aqueous chamber in hypopyon ulcers do not contain bacteria, and he believes that the iritis or cyclitis which occurs in these cases is due to irritating properties of the secretion formed by the bacteria, and not to their actual migration. The effect of irrigating the ulcer with various substances was tried; the mercury perchloride here also proved ineffectual. The most efficacious was the oxycyanide of mercury, but it caused considerable irritation. The author recommends atropine, irrigation with saline solution, and the actual cautery if these measures are ineffectual. —*Arch. f. Oph.*, 1895, i., 56.

RECENT ADVANCES IN CEREBRAL SURGERY.—Von Bergmann (*Centrabl. für Chirurgie*, No. 27, 1895), at a recent Congress of the German Surgical Society held at Berlin, brought under notice certain advances that have been recently made in the department of cerebral surgery. In cases of tumor of the brain surgery has of late done very little beyond facilitating a correct diagnosis, and rendering operative interference less dangerous. In Jacksonian epilepsy surgical treatment is usually followed by relapse, and can effect a certain cure only in those cases in which the convulsions are due to the compression of a circumscribed cortical motor centre by a tumor, as, for instance, a

cyst of traumatic origin. On the other hand, very decided progress has been made in the operative treatment of different forms of intracranial suppuration of otitic origin, such as cerebral abscess, epidural suppuration, infective thrombosis of the lateral sinus and lepto-meningitis. The most dangerous forms of chronic aural suppuration, which is usually excited by a collection of cholesteatoma in the interior of the ear, are indicated by intercurrent acute and subacute attacks, with foetid discharge, and by the presence of polypoid granulations on the tympanic cavity and the auditory meatus. The extension of the inflammation through the thin and carious tegmen tympani sets up pachy-meningitis, which in its turn gives rise to an extradural or epitympenic abscess, or to an intradural cerebral abscess. The cerebral abscess, when small and in an early stage of development, is situated at the surface of the brain, but as it enlarges it sinks into the substance of the affected lobe. As the diagnosis between a superficial and epitympenic abscess, on the one hand, and a cerebral abscess on the other, is attended with much difficulty, von Bergmann holds that it is necessary in performing an operation to expose to view both the extradural abscess and the part of the temporal lobe most likely to be involved in the extension of the suppurative process. An operation is described by which the upper and anterior surfaces of the petrosal bone are exposed through a quadrangular opening made in the squamous portion of the temporal bone, just above the line of the zygoma, and between

a line in front drawn directly upwards to the sagittal suture from the tragus, and a parallel line behind carried upwards from the posterior border of the mastoid process. By this wound the mastoid antrum and cells may be opened if necessary, and the sigmoid fossa be reached. In conclusion, Bergmann alludes to the successful results of the surgical treatment of infective thrombosis of the lateral sinus. Exposure and incision of the sinus, with ligature of the internal jugular vein, proved successful in 6 out of 13 cases treated by Jansen, of Eerlin. These cases, added to those of Macewen and other surgeons, show that the operative treatment resulted in recovery in 27 out of 45 patients. Thrombosis of the lateral sinus, it is pointed out, is often associated with extradural abscess on the roof of the tympanic cavity, and in most cases of cerebellar abscess form a communication between this collection of pus and the suppuration in the middle ear. In exposing the outer surface of the mastoid process and the bone lying behind this, search should be made for the mastoid emissary vein. Not only is the orifice a good guide to the sinus, but in addition the state of the vessel may help the diagnosis. If it contains pus suppuration in and about the lateral sinus is indicated; if it be blocked by a thrombus, this will be a sure sign of thrombosis extending to the cavernous sinus. Von Bergmann, attributing much of the recent progress in cerebral surgery to improvements in technical details and in instruments, makes use, in opening the skull, of a circular saw worked by electricity,

with which he divides the outer table, whilst the inner table is divided by the careful application of a chisel.—*Brit. Med. Jour.*

ANGINA PECTORIS, GOUTY ARTHRITIS AND DIABETES.—Ebstein, after relating in detail three cases, appends (*Berl. klin. Woch.*, June 24th, 1895) some remarks on the connection between these diseases. In two cases in which diabetes and gout occurred in fat individuals, there were also anginal attacks. In one case gout preceded diabetes, but in the other the reverse was noted. Most often diabetes follows upon gout. Attacks of gout may alternate with the diabetic manifestations. Diabetes appears to be a more favorable disease in the gouty. In both cases the angina pectoris was the most troublesome complaint. The anginal manifestations occurred in the first case ten years after the first attack of gout, whereas in the other case the angina appeared at the same time as the diabetes, or even before it. Both cases were, in the author's opinion, genuine examples of angina pectoris. It is difficult to determine in these cases whether the angina was dependent on the diabetes or on the gout. In both diseases the anginal attacks may be of a functional character. In both his cases the author thinks that the angina depended on disease in the circulatory apparatus, as changes in the heart were noted in both cases, and probably aneurysm in one of them. A sharp distinction cannot be drawn between angina caused by anatomical changes and that due to functional causes. The author has observed cases in which

such anginal attacks have existed during many years. The prognosis is, however, serious, even if no change can be made out in the circulatory organs.—*Ibid.*

THE ANTISEPTIC VALUE OF PERMANGANATE OF CALCIUM.—Nordas (*Gaz. Med. de Paris*, June 29, 1895) states that when permanganate of calcium is brought in contact with organic matters it decomposes into oxygen, manganese oxide and lime. That the oxidizing influence of this drug, together with its antiseptic power, is very considerable. Indeed, experiments have shown that it is

more powerful than bichloride of mercury, is entirely free from toxic qualities and is not caustic. The colon bacillus is most sensitive to its action, ten milligrammes being sufficient to render completely sterile a litre of the culture of this micro-organism (dilution of 100,000) in 30 seconds. The pyogenes aureus, streptococcus, bacillus of Eberth, anthrax bacillus and the coma bacillus also are quickly destroyed by this drug. In comparative studies it has shown itself, as an antiseptic, to be one hundred times more powerful than permanganate of potassium.—*Therapeutic Gazette.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE NAVY.

For the week ending September 14, 1895:

Neilson, J. L., Surgeon, detached from the U. S. R. S. "Wabash" and to the U. S. S. "Maine."

Means, V. C. B., P. A. Surgeon, from Naval Hospital, New York, and to the U. S. S. "Maine."

Richards, T. W., Assistant Surgeon, from the U. S. R. S. "Minnesota" and to the U. S. S. "Maine."

Lewis, D. O., Surgeon, from the U. S. S. "Mohican" and to the U. S. S. "Marion."

Page, J. E., P. A. Surgeon, from the U. S. S. "Philadelphia" and to the Mare Island Hospital.

Smith, R. K., Assistant Surgeon, from the U. S. R. S. "Vermont" and to the U. S. S. "Philadelphia."

Gihon, A. L., Medical Director, detached from the Naval Hospital,

Washington, D. C., and placed on retired list September 28th.

Bright, G. A., Medical Inspector, detached from the Navy Yard, New York, and to Naval Hospital, Washington, D. C.

Price, A. F., Medical Inspector, detached from Torpedo Station and to the New York Navy Yard.

Stephenson, B. F., Surgeon, detached from the Marine Rendezvous, Boston, and to the U. S. R. S. "Wabash."

Urie, J. F., P. A. Surgeon, ordered to the Marine Rendezvous, Boston, Mass.

Steele, J. M., detached from Marine Rendezvous, New York, and to the Torpedo Station, Newport.

Heneberger, L. G., ordered to Marine Rendezvous, New York, in addition to present duties.

Moore, J. H., Assistant Surgeon, detached from the U. S. S. "Atlanta" and ordered to the U. S. T. S. "Constellation."

Leach, Philip, Past Assistant Sur-

geon, ordered to the Naval Hospital, New York.

MARINE HOSPITAL SERVICE.

For the 16 days ending August 31, 1895:

Vansant, John, Surgeon, is granted leave of absence for 30 days, August 24th, 1895,

Hutton, W. H. H., Surgeon, is detailed as chairman board for physical examination officer revenue cutter service, August 22d, 1895.

Irwin, Fairfax, Surgeon, is detailed as chairman board for physical examination of candidates for revenue cutter service, August 30th, 1895.

Banks, C. E., P. A. Surgeon, is detailed as member board for physical

examination of candidates for revenue cutter service, August 30th, 1895.

Young, G. B., P. A. Surgeon, upon expiration of leave of absence, to report at Bureau for temporary duty in laboratory, August 28th, 1895.

Brown, B. W., P. A. Surgeon, is detailed as recorder board for physical examination of candidates for revenue cutter service, August 30th, 1895.

Sprague, E. K., is detailed as recorder board for physical examination of officers for revenue cutter service, August 22, 1895.

Greene, J. B., Assistant Surgeon, to proceed from Washington, D. C., to Wilmington, N. C., for temporary duty, August 22, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Dr. Catherine Chinault Runyon was admitted to membership in the Virginia Medical Society at its recent meeting. She is the first female physician admitted to membership. The North Carolina Medical Society has one female member, Dr. Annie L. Alexander, of Charlotte, admitted in 1885. We would be pleased to see others of Dr. Alexander's ability become members.

A NATIONAL DISGRACE.—The unrestricted traffic in nostrums is a disgrace to civilization. Communities and States are up in arms against alcohol as a beverage in all its forms,

excepting one most detestable and villainous. Introduce some vile ingredient into the alcohol, christen and label it as a patent or proprietary medicine, and, lo! it is robed in innocence and welcomed to the homes of the righteous. A poison can be legally sold as such in most States only with a flaring label of warning, and after double or triple forms of registration by a competent pharmacist. Put it up as a medicine, decorate it with a seductive title and a rainbow wrapper, and at once it is beyond the restraints of regulation, and may be sold by street-hawkers, slaughter-shops, anybody and every-

body, without let or hindrance. Where is the consistency, the intelligence, the justice, in this strange partiality for the nostrum cure?—*Western Druggist.*

RIVALS OF THE DOCTOR.—A French physician figures out in *La Medecine Moderne* that the doctor is lucky if he sees one sick person in five, and that, as things now go, of all human beings doctors will soon be those who will see the fewest sick people. What with the strong-minded individual who does not believe in doctors, but "knows it all" himself; the mother, grandmother and mother-in-law, each of whom doctors all the children, big and little; the water, faith-, mind- and other "curists"; the volunteer, who has an "infallible remedy" for every ailing friend and acquaintance; and, finally, the prescribing druggist—it is doubtful if even one in five of the sick reach the doctor's office or send for him. He concludes that the "medical profession, which certainly ranks far above any other callings, is in reality a very inferior one in regard to material things, and from this point of view many trades necessitating manual labor often soar far above it. If we want a coat we cannot do without the tailor, nor without the shoemaker for a pair of boots; yet in that which appertains to the art of healing any ignoramus can be a formidable rival to us; so that not only have we, in the race of life, come to struggle against other medical men, but also against a multitude of individuals with various erotichets who enrich themselves by filching the fees out of our very pockets."

HEALTH REPORTS.—The following health reports have been received at the office of the Supervising Surgeon-General Marine-Hospital Service:

Small-Pox—United States.

Louisiana: New Orleans, August 3 to 31, 2 deaths.

Michigan: Kalamazoo, August 17, 1 case; Calhoun, August 24, 1 case.

Tennessee: Memphis, August 1 to 31, 3 cases.

Texas: Eagle Pass, September 4 to 8, 5 cases and 3 deaths.

Total small-pox cases and deaths among refugees at Camp Jenner, near Eagle Pass, 177 cases, 55 deaths.

Small-Pox—Foreign.

Cairo, July 23 to August 5, 3 deaths.

Calcutta, July 20 to 27, 5 deaths.

Constantinople, June 1 to 31, 39 deaths.

Dublin, August 17 to 24, 3 cases.

Gibraltar, August 11 to 18, 1 case.

Havana, August 24 to 31, 2 deaths.

Hong Kong, July 20 to 27, 1 death.

London, England, August 17 to 24, 6 deaths.

Montevideo, July 27 to August 3, 1 case.

Naples, August 16 to 23, 1 case and 1 death.

Nice, July 1 to 31, 1 death.

Nogales, August 31, 1 case and 1 death.

St. Petersburg, August 3 to 10, 4 cases and 1 death.

Prague, August 3 to 17, 2 cases.

Rio de Janeiro, August 3 to 10, 68 deaths.

Rome, June 22 to 29, 1 death.

Yellow Fever—Foreign.

Brazil: Rio de Janeiro, August 3 to 10, 7 deaths; Santos, August 3 to 10, 2 cases.

Cuba: Havana, August 22 to 29, 90 cases, 30 deaths; Matanzas, Aug. 12 to 28, 12 cases; Santiago, August 17 to 31, 44 deaths; Santa Clara, August 24, 2 cases; Santa Domingo, August 24, 2 deaths; Sancti Spiritu, August 24, 30 cases.

Puerto Rico: San Juan, August 3 to 24, 21 cases, 14 deaths.

Cholera—Foreign.

China: Hong Kong, July 28 to August 3, 2 deaths.

France: Cognac, August 17 to 24, 1 death.

India: Calcutta, July 20 to 27, 9 deaths; Bombay, July 27 to August 2, 1 death; Singapore, July 16 to 22, 44 cases, 37 deaths.

Japan: Nagasaki, August 5 to 12,

40 cases, 30 deaths; Osaka and Hiogo, August 3 to 10, 243 cases, 179 deaths; Yokohama, August 2 to 16, 36 cases, 27 deaths,

Turkey in Asia: Aleppo, July 17 to 24, 24 cases, 21 deaths. Hamah, July 22 to August 3, 20 cases, 5 deaths; August 7 to 10, 1 death.

Dr. V. A. Whitley has removed from Norwood to Concord, N. C.

Dr. B. T. Bitting has removed from Rural Hall to Mizpah, N. C.

An illegal practitioner was sent to the Penitentiary for three months in New York. How many in North Carolina have suffered for violating the laws? Do your duty, Messrs. Solicitors.

We regret to learn that Dr. W. E. Headen, of Chapel Hill, met with a very painful injury a short time since, by being thrown from his buggy against a barbed-wire fence.

Reading Notices.

ELIXIR SIX IODIDES, Elixir Six Bromides, Elixir Six Hypophosphites and Elixir Six Aperiens (Walker-Green's) have been made uniform in price, namely, \$8.00 per dozen. These Elixirs are rapidly gaining the confidence of the profession. The latest circular can be obtained upon request.

CHEMICAL FOOD is a mixture of Phosphoric Acid and Phosphates, the

value of which Physicians seem to have lost sight of, to some extent, in the past few years. The Robinson-Pettet Co., to whose advertisement (on page 13) we refer our readers, have placed upon the market a much improved form of this compound, "ROBINSON'S PHOSPHORIC ELIXIR." Its superiority consists in its uniform composition and high degree of palatability.

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Original Communications.

REPORT OF THE CHAIRMAN ON THE SECTION OF THE PRACTICE OF MEDICINE.

BY THOMAS M. RIDDICK, M.D., Woodville, N. C.

In lieu of the customary review of the whole field of Practice, I have prepared a paper on

PNEUMONITIS IN CHILDHOOD.

My friends, Drs. Marshall, Arthur, Grimes and Fitch have kindly prepared papers too, under my Section, which they will present.

In the selection of subjects I have endeavored to choose those that will prove of most interest to the practical physician when they are discussed.

Now, pneumonitis is a self-limited infectious disease, producing temporary pulmonary lesions that are peculiar to it. It is non-contagious.

There are two types of this malady which present themselves for our consideration: First, croupous or lobar pneumonitis, where the pulmonary invasion is immediate, and the lung structure itself the original site of inflammatory activity; and second, broncho or lobular pneumonitis, where the lung involvement is a sequence of a preëxisting bronchitis, or rather a downward extension of the bronchial inflammation into the pulmonary tissue.

Each form of the disease has its distinguishing characteristics. For instance, broncho-pneumonia is often found as a complication in whooping-cough, measles, scarlatina, typhoid fever and diphtheritic croup, and we must not overlook hypostatic congestion and atelectasis in reviewing the factors in its causation. Children under the age of three years or thereabouts, it appears, are more given to this form of pneumonia, while the lobar or croupous type of this affection is more frequently found in those children who have passed the earlier years of infantile life and are approaching the stage of adolescence.

*Read before the North Carolina Medical Society, May 15, 1895.

/ For many years the opinion obtained that pneumonitis was essentially an inflammatory affection, and exposure to dampness and cold were regarded as the chief agents in its generation. The frequent coexistence of a severe cough and cold at the time of an attack, seemed to support that view of its etiology. The fact, however, that it prevails as much in mild climates as in those of lower temperature, and the further fact that it often assails those who have not been in anywise subjected to exposure, antagonizes somewhat the former theory that prevailed as to its origin. We may class vicissitude of temperature, then, as being a predisposing condition, rather than a primary agent in setting up the disease.

Bad sanitary surroundings in this, as in other diseases, are potent auxiliaries in its spread and propagation, and many violent endemic attacks of it have been traced directly to the close proximity of cesspools to the habitation of the sick and to the atmospheric contamination resulting from bad plumbing. Over-crowding, poor ventilation and uncleanness assist greatly in its production.

In short, it is now held that pneumonitis is a zymotic disease, and that wherever the specific pneumonic germ finds a favorable and fostering nidus there it propagates.

The lancet-shaped coccus of Frankel is claimed by many pathologists to be the source of trouble in pneumonitis, though Professor Prudden, a high authority, holds that Frankel's pneumococcus is not the only microbe which can generate pneumonia, but that pulmonary inflammation may result from the action of other microbes, especially where the pneumonia occurs as a complication of infectious diseases.

It must be admitted that the development of traumatic pneumonia, from forceful injury to the lung tissue, impairs somewhat the force of the theory which regards this disease as being of purely microbic origin.

In children the pathological anatomy of pneumonia is not radically different from what we find in grown-up people. The different stages of congestion, hepatization and softening or liquefaction are found, as in adults. Suppuration and gangrene are not frequently found among children, save in those grave cases where embolic plugging occurs. All three of the above-mentioned stages may exist at once, death resulting from the rapid extension of one condition into another more fatal.

The right pulmonary apex is generally first involved, then the left apex. Next in order is the left base, followed by the right base. Sometimes the inflammation is so widespread as to involve all of the pulmonary lobes in rapid succession, and often it passes over to the opposite lung, giving us a bilateral form of the disease.

In the first stage of hyperæmia the arterioles are greatly distended by the undue afflux of blood to the part. This is soon followed by the stage of red hepatization. Here the lung tissue is to a great extent solidified and resist-

ant upon palpation. The tissue yields and breaks down when subjected to much pressure. Its color is a deep red, and on section presents a granular appearance. The bronchial* tubes adjacent to the inflamed lobule contain fibrin, muco-pus and epithelium. Fibrin is also found on the pleura, which covers the affected lobe. The air vesicles contain epithelial cells, pus cells, fibrin and red blood globules.

When the stage of red hepatization is at its maximum of development the products of inflammation completely fill the air cells.

The stage of gray hepatization follows that of red hepatization, the lung structure showing a grayish mottled appearance. Here the cell contents take on granular degeneration, then soften and liquefy and are removed by absorption, when resolution sets in. Expectoration, too, is an active means in ridding the system of this pathological product.

In lieu of resolution a cheesy condition may supervene. In that case the pulmonary exudation assumes a condition of firmness and appears whitish and cheese-like. In some cases a necrosis of the lung tissue occurs, due to arrested circulation in the parts.

In childhood the inauguration of croupous pneumonia is somewhat different from that in the adult. In the latter a decided chill usually ushers in the attack, while in children a mere sensation of chilliness, sometimes followed by convulsions, is the initial announcement of the disease. Catarrhal pneumonia, being a consecutive affection, is more gradual in its approaches, and many of its prodromal features are those of the bronchial trouble, of which it is a sequence.

When we find the little sufferer with elevated temperature, restless, refusing to take nourishment, thirsty, face flushed, pulse much accelerated, respiration quickened, with marked enfeeblement and the facial expression anxious and indicative of suffering, we may reasonably suspect that pneumonitis has claimed it for a victim. In the acute forms of both croupous and well-developed catarrhal pneumonia these symptoms are present, though in the latter type they are somewhat mitigated.

In some authorities we find the expiratory moan placed as a pathognomonic sign, but my own observation is that this rule has exceptions. When it is present it doubtless occurs from the pain experienced in the inflamed part, during the acts of respiration, though pronounced gastric distress would give a kindred symptom.

In the incipient stage we observe that the cough is dry and hacking in character and a source of much irritation to the little patient, though as the disease advances with favorable tendencies it becomes looser and much less painful, the detachment of the sputum becoming easier.

The misty hue of the expectorated matter, which is a cardinal diagnostic proof in adult pneumonia, is wanting in childhood. In fact, in very young

children comparatively little of the sputum is expectorated, the patient, in most instances, swallowing it involuntarily.

The headache, which is a frequent feature, especially if it be conjoined with convulsions and decided hebetude of the senses in the earlier stages, is likely to awaken grave suspicions of an affection of the central nervous system, and pneumonia has often been mistaken for meningitis by too hasty diagnosticians. Nausea and vomiting, together with muscular twitchings, appear confirmatory of such an opinion, but the later manifestations show plainly that the thorax, rather than the brain, is the pathological seat. After the full development of labor pneumonia, the proofs elicited by auscultation and percussion leave no further reasons for doubt or obscurity as to the character of the malady in question.

In the catarrhal form of pneumonia we are more prone to error in diagnosis than in the lobar or croupous type, for the physical signs are much harder to bring out, due to their lessened intensity. Frequently bronchitis is diagnosed where a catarrhal pneumonia really exists. But as the conditions to be combatted demand remedial measures that are corrective of both bronchial and pulmonary inflammation, it does not matter greatly if such a pardonable diagnostic sin be committed.

The hasty respiration, sometimes reaching 30, 40 and even 50 respiratory movements in a minute, is a valuable sign-board here, and assists no little in the differential diagnosis. Dyspnœa is often marked.

The temperature range is variable, depending much upon the severity of the attack. In the milder cases it runs from 101° to 103° , while in the more severe ones it often runs from 105° to 106° . As much as 107° has been recorded.

In the major portion of cases 104° may be said to represent the average, when the fastigium is reached. In robust children, where a sthenic form of inflammation exists, this gives rise to great flushing of the face, while in others, of a more asthenic and anæmic type, we see pallor of the countenance and a somewhat depressed temperature.

A moist but furred tongue is the rule. The thirst is pronounced. For the most part the bowels are constipated and the secretions checked. The urine is more concentrated and takes on a deeper red color, and in some patients urates are found after it has cooled.

While the inflammatory processes are most active the chlorides are much reduced in quantity or are wholly diminished.

As the symptoms abate there is an evident improvement visible in the manner and general appearance of the patient. Soon the playthings are called for and the childish desires and wants of the healthy state reappear.

The convalescence, in favorable cases, is gradual and steady, if there be no relapse, though a cough often remains for a while as a lingering memento of the attack.

The prognosis, of course, is measured by the form and intensity of the disease and the presence or absence of complications. It would be needless to advert to the fact that a bilateral seizure of pneumonia is less favorable, as to outcome, than a unilateral one, and that secondary attacks, which are the sequelæ of measles, whooping-cough and other debilitating affections are more to be dreaded than primary attacks. We may put it down as a fact that any preëxisting or accompanying condition that increases the asthenic state of the patient must always be regarded with alarm, for death occurs from exhaustion in a large proportion of cases. The younger the child the greater the danger, for the patient, by reason of its tender years, is lacking in that reserve energy, which might pull an older and stronger child through a crisis.

We will now consider the treatment or rational therapeutics indicated in both the croupous and catarrhal forms of pneumonitis.

In the lobular form of pneumonia we remember that we must not only control the antecedent bronchitis by counter-irritation, over the tract of inflammation, and by expectorant agents that control the inflamed state of the bronchial mucous-membrane and favor the detachment and expulsion of mucus from the air-passages, but we must also fight the additional debility of the patient, which has been superinduced by the further extension of the original trouble into the lung substance. We must ever be watchful of the fatal effects of a prolonged asthenic, and remedies that brace and tone the heart and exercise a general tonic and supportive influence upon the whole system are indicated.

As a counter-irritant, cantharidal collodion is my choice, applied judiciously over the area of inflammation. As an expectorant and stimulating agent to the inflamed bronchial membrane, I prefer the combination of ipecac and ammonium chloride, regulating, of course, the quantity in all cases to the age of my patient. To support the heart, I give digitalis, and quinine to lessen inflammatory processes. If the cough be of the irritable type, I add tinct. opii. camph. to my expectorant mixture prorenata.

The secretions must be kept active and the bowels open, and to secure this end nothing, in my opinion, is better than calomel, followed by a saline purge. Nutrients and stimulants, in some cases badly administered, are absolute essentials, if we do not want a fatal termination from exhaustion.

Any collateral troubles that may arise must, of course, be met by such appropriate measures as will suggest themselves to every practical physician. If the pyrexia exceed 102°, I give phenacetin as long as needful, but no longer, for all cardiac depressants should be avoided, as far as possible, lest the last straw might break the camel's back.

In croupous pneumonia, where the onslaught of the disease is sudden, our measures must, perhaps, be a little intensified and heroic, for we have an active, rather than a passive, form of congestion to combat. Many of the

remedial measures above-named find a good field for therapeutic application here; but our work is somewhat shorter and must be sharper. The fires of an active inflammation blaze, so to speak, and we must take antiphlogistic weapons from our medical armamentarium if we would come off victorious in the fray.

In the earlier stages the cardiac sedatives exhibited conservatively, find their place. *Aconite and veratrum viride are the best of these.

In the second stage strychnine and digitalis should be given to support the weakened and flagging heart, so that it may pump the blood up through a solidified area. Quinine, to abate inflammatory energy; ammonium, salts and ipecac, to favor expectoration; good counter-irritation, not pushed to that point, however, where the patient would cry for mercy, as my facetious friend, Dr. Oscar McMullan, might suggest, but rationally employed; active stimulation with milk toddy and egg-nogg; calomel, to relieve the disordered secretions, and iron and arsenic, if there be any coexistence of malaria, are the therapeutic measures demanded. An equable and uniform temperature in the sick chamber is a *sine qua non*.

DISCUSSION.

Dr. Hill remarked, as he had the day before, that the treatment for pneumonia is whiskey. As an authority he gave Dr. Flint, who cited one case in which he used half an ounce of pure French brandy every half hour for six hours and the patient recovered. He had seen time and again cases of pneumonia in children where they were given a good dose of whiskey, and the crying and screaming would stop and they would go to sleep. As for quinine, he had never seen in his whole practice where it did one particle of good and he had seen it do harm time and again. If the pneumonia patient is given quinine he is gotten into a fretful, nervous condition, that quinine always produces. He was surprised that in the mention of heart stimulants for cases of pneumonia no mention had been made of nitro-glycerine. He had seen cases where the patient was almost moribund and was given nitro-glycerine and it brought the child out. Then the antidote, whiskey, should be given. He should continue to use whiskey till he found something better.

Dr. McMullan raised his voice against the use of antipyrine in pneumonia. He did not believe that fever at all times was something to be combatted, but was rather inclined to think it is a conservative process by which poison is eliminated from the system. He did not believe it ought to be interfered with materially, certainly not by depressing the heat centres by the cold tar series—possibly by skin elimination, unless the fever becomes abnormally high. In a case of pneumonia he is always glad to have a temperature of 103°, and he was glad to see the patient in pain, for then he knows the patient has strength enough to throw it off. He was not an advocate for

cantharides, for he is of the opinion that they are too irritable. He asked that the Society should sprinkle a few grains of salt over what Dr. Riddick had said about cantharides.

Dr. Frank Duffy reported a case of a child three years old whom he had left very sick with pneumonia. The patient had whooping-cough, but long enough to be well, but was still having paroxysms of violent coughing, and is suffering with bronchial pneumonia in both lungs. On the last Sunday the temperature having risen very high and it appearing that the patient was about to die, he was summoned and found the child cold, his arms blue, respiration very rapid and occasionally having those paroxysms of coughing. It looked like dissolution was imminent. He gave the child peroxide of hydrogen, a half teaspoonful, which was given frequently, sometimes not more than ten or fifteen minutes apart. At one time the mother laid the child down and went away, supposing it to be about expiring, but whether from the remedy or not, the color began to return, and he now thought the child in a fair way of recovery. He had used that remedy some, but that was the most marked instance of its use. There are some objections to its use and some good reasons for not expecting very much from it, but he was very much impressed with that case, and had spoken to some medical brothers about it, among whom is Dr. Hyatt, who thinks it a very good remedy. There is a great deal to be said in connection with the treatment of pneumonia. No doubt doctors have done a great deal of harm as well as good. The first hospital he was at in Baltimore Dr. George Farnandis, one of the visiting physicians, said if a patient had pneumonia he would give a half grain of tartar emetic every two hours. A lady 80 years of age had pneumonia at that time and was treated with that medicine and recovered. Though he knew all that has been said against it, still he had some lingering respect for the remedy, growing out of his observation of it, although he had himself used it very little. He stimulated very freely with alcohol.

Dr. Haigh did not think the statement ought to go unchallenged that quinine is of no service in pneumonia. Often physicians see published a case where certain remedies have been used with certain results, and think they ought to use the remedy themselves, and do use it and find it to be of very little service. He himself had often been very much disappointed in that way, but he thinks that the reason was a mistake on his part, probably because he did not know the mode of using the remedy and did not use it properly. Dr. Otis claimed that pneumonia could be aborted by the use of quinine, and he gave as high as thirty or forty grains at the commencement of the disease and claimed that he aborted the disease frequently. He himself was perfectly satisfied that quinine is of much service in pneumonia and did not think it ought to be thrown aside without some remarks in its favor. He had seen the effects of this disease cut short from a few doses of quinine.

Dr. Sykes agreed with Dr. Haigh about the use of quinine. In the treat-

ment of pneumonia in adults and in women and also in children who have reached 12 years, he did not want a better remedy than quinine and spirits of turpentine. He had never lost a case under 60 years of age from pneumonia, except one girl about 18 years old, who had had some lung trouble ever since childhood. He had treated quite a number of children and did not want anything better than deodorized tincture of opium and spirits of nitre and syrup of ipecac. He would not be willing to have quinine set aside; he had used it in the treatment of children with signal success.

Dr. Faison wished to bring out one point in the treatment of Dr. Riddick, and that was the diagnosis. When there is bronchitis and the temperature goes from 99 to 100 up to 102½ and 103, he generally made the case pneumonia without listening to protest. He took for granted that children's cases were those Dr. Riddick had reported particularly. In treating children he had not relied upon such medicine; but when he would see children with the livid hue about the face and hard breathing, he had never seen anything act so admirably as a hot bath with plenty of bi-carbonate of sodium; the child would rest easily after this. He had absolutely discarded quinine in those cases. He used the aromatic spirits of ammonia with chloroform to allay the pain. He used quinine and Dr. Hill's antidote, whiskey. The point he wished to bring out was that the temperature is important in the diagnosis of pneumonia in children.

SUSPECTING that the therapeutic action of salicylic acid in acute articular rheumatism was due to antineuralgic action of the medicament on the rheumatic arthritis, and not to any specific action of its own, Professor Magliano requested Drs. Jemma and Marengo to institute experiments on the curative influence of the drug applied locally in the form of an ointment. This mode of administering the acid was found to be preferable to giving it by the mouth; the derangements of digestion—even gastritis sometimes—so frequently observed when used internally do not follow its external application. From the author's researches (*Gaz. d. Osp.*) it is seen that salicylic acid has a decided and constant analgesic property; it acts on the diseased joints like a mild revulsant, not giving rise to any subjective symptoms. Its antipyretic action is very slight, but this is also true of it when given by the mouth.—*Practitioner.*

MANAGEMENT OF RING-WORM.—This may with certainty be removed by first rubbing briskly with turpentine until smarting is induced, washing with carbolic acid soap (10 per cent.), and finally, after drying, applying two or three coats of tincture of iodine.—*Med. Age.*

REPORT OF SURGICAL CASES.

BY FRANCIS DUFFY, M.D., Newbern, N. C.

INFLAMMATION OF KNEE-JOINT OF TRAUMATIC ORIGIN—SUBSEQUENT DEVELOPMENT OF MALIGNANT TUMOR, WHICH WAS MISTAKEN FOR ANEURISM OF THE POPLITEAL ARTERY.

Patient, man, æt 21 years, applied for treatment December 7th, 1892. The knee-joint was very much enlarged, tense and hot pain was almost constant, and, judging from complaints of patient, sometimes very severe.

Patient was a sailor; more than a year before he had fallen on the deck of a vessel and injured his knee-joint; some time after that he was accidentally struck on the knee with a hammer, and lately sustained a third injury by falling on the injured part. Inflammation of the knee-joint was easy to discover, but there were complications which were not easy to determine. The condyles were expanded and the popliteal space bulging. Puncture of the joint at the inner side with an aspiratory needle brought away a small quantity of bloody serum.

I padded the limb with cotton and put it up in a plaster-Paris dressing, so as to keep the parts immovable and subject to equal pressure. Patient was kept under general treatment, such as opiates, to relieve pain, iodide of iron, cod-liver oil; but there was no improvement. After about a week the cast was too tight and was removed. Careful examination of the popliteal region discovered pulsation, not only over the artery, but a little to each side. The fingers of each hand being pressed on opposite sides of the artery and separated two inches apart, would each detect synchronous pulsation. When the ear was applied a loud aneurismal (?) bruit was heard. Aneurism was supposed to be present.

The patient was examined by Drs. F. W. Hughes, Charles Duffy and Leinster Duffy and the diagnosis confirmed. The condition of the limb was such as to require amputation, which was done at about the junction of the middle and lower third.

Recovery was tedious, but by March 15th, 1893, the stump was healed and patient robust in appearance.

Examination of the amputated joint revealed the fact that the popliteal artery was intact and no aneurism present. A tumor of malignant appearance originated on the posterior aspect of the internal condyle, which was rough and eroded, and from which surface projected grayish fungus-looking masses. It may be questioned whether this tumor pulsated or whether the impulse of the artery was transmitted through the surrounding tissues. Of course pressure would account for the murmur. The patient went away and

*Read before the North Carolina Medical Society, May 15, 1895

I lost sight of him, but I think it likely that the trouble has recurred in the stump or some other part.

Twice before, in the last fifteen years have I reported to this Society cases of tumors which at first were thought to be aneurismal, and in both of these cases amputations were performed—one in arm, the other in the thigh. In both of these the patients died after entirely recovering from the amputation.

HYPERTROPHIC NASAL CATARRH TREATED BY ELECTROLYSIS.

A gentleman æt 34 years, a robust subject, applied to me January 12th, 1893, suffering with nasal catarrh. The pharynx was subacutely inflamed. The discharge was not profuse and but little offensive. One nostril was occluded to natural respiration—a little air could be forced through. The other was less obstructed—the voice was decidedly “nasal.”

The patient was treated with douches and internal medication. Solutions of boracic and carbolic acids, listerine, glycerin, albolene, etc., were freely tried with different forms of douche apparatus, nasal irrigations and sprays, with slight temporary benefit. The internal administration of iodide of potassium was also of some benefit.

Not obtaining much benefit, I resorted to strong carbolic acid. After benumbing the mucous-membrane with cocaine, I would wrap a piece of absorbent cotton around the end of a probe, and, after dipping that in liquid carbolic acid, pass it in the nostril and apply it freely and as thoroughly as practicable to the diseased tissue. This was done twice a week for a few weeks. The nose, which would bleed any time when forcibly blown, would always bleed a little after those operations. Douches were kept up between times. These powders were used with Bosworth's powder-blower, iodoform, iatral, iodol, etc. Still there was no marked relief. After four or five months of such treatment the patient went (he informed me) to Philadelphia, and was under the treatment of a specialist several weeks. His throat was benefited, but he returned to me with the nose about in the same condition as before. The nasal mucous membrane was very much thickened, soft and bleeding at slight touch along the turbinated bones, but tough on the floor of the anterior nares, the passage being very much encroached on and the orifice narrowed.

I then decided to try electrolysis, which was begun in August, 1893. The battery used was Waite & Bartlett's liquid 24-cell galvanic, which, however, is much more powerful than is necessary for that purpose. With clean elements and fresh fluid, six cells will give as much force as is necessary, viz: from 5 to 10 milliamperes. But only by attaching the milliamperemeter can you correctly estimate the force of the current. Two forms of electrodes were used—one, a slightly bent staff, with a round point about 20 milliamperes in diameter; the other, a straight shaft, with a thin, flat blade, about 2 inches long and $\frac{1}{4}$ inch in diameter.

Pledgets of cotton were soaked in strong solution of cocaine and were pushed within the nose and allowed to remain until the organ was benumbed, then the sound electrode was inserted and pressed gently and gradually along the floor of the nares. After a few minutes the obstruction would give way and the electrode would pass through; it was then drawn back in the same gradual manner. The electrode was then changed, taking the thin, flat one and gently passing it in the narrow parts of the passage between the septum and the turbinated bones. The current was applied about fifteen minutes, and, notwithstanding the cocaine, caused considerable irritation, disposing the patient to sneeze, especially when stronger than 5 or 6 milliamperes. The negative pole was, of course, used in the nose, the positive either held in the hand or placed on the cheek, but it was interesting to note the difference in the meter when the pole was changed from the hand to the cheek, the less resistance in the short circuit giving, of course, a stronger current. There was, at first, always some hemorrhage after these operations, and if the current was too strong, there was increased local irritation for several days. The current was applied twice a week and some weeks were skipped. About twenty applications in all were made, and while he cannot be said to be cured, he is in a very much improved condition and regards the electricity as the only thing which was of real benefit to him. At first only the worst side was operated on, which soon became the best side, the patient breathing through it with comfort and the tones of his voice much improved. Then the other side was operated on with like result.

The patient has not been under my observation for several months and has moved away to a distant State. This is the only case of the kind on which I have had any opportunity to try the treatment.

DIFFICULT CASE OF ERROR OF REFRACTION OF THE EYE.

Ignatius W. Brock, æt 24 years, consulted me May 31st, 1892, on account of trouble with his eyes. Being an artist, his eyes had been very much taxed by painting, drawing and the like, for a number of years. Examination revealed astigmatism.

Vision R. E., 20-30+. L. E. 20-20.

The different lenses which his eye would accept and the different axes at which cylindrical lenses were accepted at different trials soon made it evident that a correct result could scarcely be obtained without the use of atropine. He was so informed, but rather than have his work interfered with so long by dilated pupils, he preferred to have me do the best that I could by repeated trials without midriatics. The record shows that on the 31st of May, with

R. E. cyl. — 36, axis 180°, vision was 20-20.

L. E. cyl. + 72, axis 90° ⊖ cyl. — 50, axis 180°, vision 20-20.

June 7th, R. E. cyl. — 36, axis 10° \subset cyl. + 60, axis 100° , vision 20-20.

“ L. E. cyl. — 50, axis 170° \subset cyl. — 72, axis 80° , vision 20-20.

June 21st, R. E. cyl. — 36, axis 180° , vision 20-20.

“ L. E. cyl. — 36, axis 160° , vision 20-20.

July 18th, R. E. cyl. — 38, axis 10° , vision 20-20.

“ L. E. cyl. — 40, axis 165° , vision 20-20.

Other trials seeming to point to this last formula, I wrote it for him and had it filled; but it did not prove satisfactory; the eyes were not at ease and tired on use.

In November or December, 1892, Mr. Brock being in New York, consulted Dr. Knapp at his office, as he informs me, who put homatopine in his eyes at the first visit, repeating in half hour, and under that influence examined the eyes, not using it again. Two days afterward, he says, the Doctor made another examination, and again in about one week. He gave him spectacles approximating this:

R.—Both eyes, cyl. + 0.75, D., axis 90° .

These proved unsatisfactory, and vision (at this writing) with these glasses is as follows:

R. E. 20-30. L. E. 20-30 +.

When reading or drawing, while wearing the spectacles, the eyes would become painful and patient thought he was as well without them, and so discontinued their use.

In January, 1894, Mr. Brock states he was in Baltimore and consulted Dr. J. J. Chisholm, who first tested his eyes without atropine and then applied homatropine once and tested two hours afterward, then tested again next day and prescribed this formula, which patient showed me:—

R. E. cyl. — 1.25, axis 15° .

L. E. cyl. — 1., axis 165° .

With these patient sees nearly 20-20, but the letters are a little blurred and dial not uniform. He wore them nearly three months, but his eyes, after a short time were uneasy and sometimes headache followed their use.

Mr. Brock then consulted me again, and on hearing him carefully, I came to the conclusion that the accommodation of the eyes had now been relaxed, and consequently a correct formula had not been obtained.

April 26th I made four applications of a 4-grain to $\frac{3}{4}$ i. solution of atropia sulph. at intervals of from one to three hours.

On the 27th three applications were made and patient was very much affected in a general way—dryness, dizziness, difficulty in urinating, etc.

On the 28th I applied a strong solution of cocaine to the eyes and the pupils became distinctly wider, notwithstanding the fact that the patient was

nearly poisoned by frequent instillation of atropine in the eyes, taking care at the same time to keep it out of the tear passages.

Patient now read $\frac{10}{60}$ with each eye, and with glasses as follows. No improvement with spherical glasses. With cylindrics:

R. E. $+ 24$, axis 90° , $\ominus - 72$, axis 180° , vision 20-20.

Left eye $+ 30$, axis 90° , $\ominus - 30$, axis 180° , 20-20.

On May 8th no atropine having been used since April 27th, eyes accepted as follows:

R. E. cyl. $+ 40$, axis 90° , \ominus cyl. $- 72$, axis 180° , vision 20-20.

L. E. cyl. $+ 36$, axis 90° , \ominus cyl. $- 60$, axis 180° , 20-20.

The eyes had been rested since the use of the atropine. It is interesting to note the changes which the eyes underwent until the 11th, as the eyes by use lost more and more the effects of the recent rest from atropine, and even after the pupil was reduced to its normal state.

10th.—R. E. cyl. $+ 50$, axis 90° , $\ominus - 36$, axis 180° .

L. E. " $+ 50$, axis 80° , $\ominus - 50$, axis 170° .

This last formula was at last repeatedly accepted, and, as will be seen, is a compromise between the demands of the eyes with and without atropine.

O. D. spher. $- 1.12$ \ominus cyl. $+ 2$, axis 100° .

O. S. spher. $- 0.75$ \ominus cyl. $+ 1.50$ axis 85° .

The patient is using this formula with good results.

It will be observed that some of these formula are written in inch and some in dioptric scale.

The above case is reported, not to discredit the work of the eminent specialists referred to, but to show the inadequacy of incomplete relaxation of accommodation and hurried examinations in such cases.

REMARKS ON THE SURGICAL TREATMENT OF CHOLELITHIASIS.*

BY HUGH M. TAYLOR, M.D., Richmond, Va., Professor of Practice of Surgery in the University College of Medicine, Surgeon to Virginia Hospital, etc.

The surgery of the gall-tract is perhaps claiming a professional interest second only to that accorded to appendicitis. The one morbid condition is as essentially surgical as the other, and both are equally responsible for ill-health and death. The evolution of the subject of appendicitis received an

*Read before the Richmond Academy of Medicine and Surgery Aug. 27. 1895.

impetus earlier. It followed close upon the concentration of thought on the pelvic phlegmons, but in view of its importance gall-tract surgery is receiving its merited share of attention. Few of us can review our professional work and not be conscious of having treated operable cases of cholelithiasis and its consequences unrecognized as such. The credit of increasing our diagnostic acumen in this field belongs, in a great measure, to the surgical clinic. In the medical clinic, percussion, palpation, etc., revealed but little tangible information. In the surgical clinic, on the other hand, the exploratory incision revealed the correct anatomico-pathological condition, associated the symptoms manifested with the morbid conditions found, and it is now defining on logical lines the limitations and technique of operative interference for the relief of the various products of cholelithiasis. The evolution of the subject has been rapid. Within the past ten or twelve years all the marked advance in its study has been made, and, while already yet in its infancy, the field of operative procedure has been immensely widened and many of its morbid conditions have been brought within the scope of legitimate conservative surgery, with untold benefit to mankind. Viewed in the light of recent knowledge, we appreciate the fact that few of us have failed to treat as gastralgia, indigestion, diaphragmatic pleurisy, enlargement of the liver, malarial fever, bilious fever, etc., cases which should have been diagnosed and treated as cholelithiasis and its consequences. In my own early professional work I can recall at least a half dozen clearly operable cases which were allowed to go from bad to worse and die without operative aid. Enough has been ascertained to prove that the so-called medical treatment offers but a small chance of benefiting the condition of impacted gall-stone or stones, and certainly no possible chance of curing a cholangitis or empyema or cystitis of the gall-bladder. Experience shows that the solution of gall-stones by medication is a myth, and that whenever they have attained to any size, or are present in considerable numbers and are producing symptoms, they can only be rationally treated by operation. Moreover, it is true that a laparotomy *per se* for the relief of such conditions is attended with less shock and danger than is a laparotomy for other intraperitoneal troubles, as there will usually be very much less evisceration. This much in connection with the subject of cholelithiasis is practically settled. The unsettled problem is to classify the various morbid conditions; to differentiate clinically between them prior to an exploratory incision and to apply to their relief the most rational available surgical procedure. In this we have a field for experimental pioneer work, the cultivation of which offers rich reward.

What are the morbid conditions calling for surgical interference? By almost unanimity of opinion, and specifically, according to an enumeration of Professor W. Mayo Robson, operative interference is indicated, and the earlier the better—

(a) In cases of repeated attacks of biliary colic, apparently due to gall-

stones, which, not yielding to medical treatment, are wearing out the patient's strength.

(b) In perforation from ulceration.

(c) When there is suppuration in the neighborhood of the gall-bladder set up by gall-stones.

(d) In empyema of the gall-bladder, which is usually accompanied by peritonitis.

(e) In dropsy of the gall-bladder.

(f) In obstructive jaundice, when there is reason to think that the common duct is occluded by gall-stones.

The study of the subject of cholelithiasis and its consequences will be facilitated if we keep in mind the fact that the gall-tract is a drain-tract, through which the bile from the liver and the mucus from the gall-bladder must pass unobstructed, to ensure good health. Obstruction means the damming back of the outflowing products, dilatation of the ducts or gall-bladder, irritation of the tracts, suppuration in the tracts, extension of the inflammation to the peritoneal investment of the tracts, adhesions and matting around the inflamed tube, and a pathological condition analogous to inflammation in the Fallopian tubes and vermiform appendix. While a catarrhal cholangitis, the inflammation limited to the mucous lining of the tubes, may be possible, usually all the coats (the peritoneal included) are involved.

We should also keep well in mind that, while an obstruction in the cystic duct dams back the secretions of the gall-bladder only, an obstruction in the common duct dams back the bile from the liver as well as the mucus from the gall-bladder. Obstruction of the cystic induces dropsy of the gall-bladder, empyema, chronic cystitis, inflammation of its coats, including the peritoneal investment, perforation or gangrene, and the local and constitutional symptoms incident to such morbid conditions.

Obstruction in the common duct induces inflammation of the duct, extension of that inflammation to the peritoneal investment, local peritonitis, adhesions, and, perhaps, ulceration, and perforation, dilatation of the duct, decomposition of the retained products within the duct, and systemic poison as a consequence. From the irritation, alone, reflex disturbances are not infrequent, while the chills, fever, sweats, etc., make a septic cholangitis, simulate so closely malarial, bilious and other febrile manifestations. There is no jaundice in cystic duct obstruction. Varying jaundice in common duct obstruction from stone. Persistent, unvarying jaundice in obstruction from neoplasms, benign or malignant, pressing on the tube is the rule.

Obstruction of the common duct, from whatever cause, if persistent enough, dams back the bile, induces cholæmia and its consequences; not the least serious of which is its effects upon the blood.

We should remember that stones in the gall-bladder do not necessarily

give rise to trouble. It is estimated that 10 per cent. of adult males, 25 per cent of adult females, and 36 per cent. of the insane have gall-stones, and only from 1 to 2 per cent. have symptoms of the same. While this estimate of cases giving trouble is too small, it helps to sustain the well-known fact that many gall-bladders are full of stones which are doing no harm, but then again, they may give trouble by irritation, accumulation, infection and inflammatory changes, often of an intense type. Each attack of inflammation of the gall-bladder due to stones therein, and with no obstruction, causes more or less thickening of its walls and subsequent contraction of the bladder, until finally nothing remains but a bound-down tube. Stones in the cystic duct, or stenosis, induce changes in the gall-bladder and duct, septic, ulcerative or gangrenous, and colic, frequent and exhausting. Stones in the common duct induce urgent symptoms and call for prompt relief.

The dangers of cholelithiasis and its consequences as grouped as:

(a) That repeated attacks may, and not infrequently do, exhaust the patient. Cases are on record in which the extreme vomiting and prolonged suffering of one attack has terminated fatally.

(b) Fatal cholæmia, with its strong hemorrhagic tendency, both post- and ante-operative.

(c) Distension of the gall-bladder until it enlarges sufficiently, in some cases, to reach to the pelvis, pressure effects incident thereto, and local and general effects from the decomposition of its retained products, i. e., empyema and cystitis.

If we recall its rich lymphatic supply, we will readily understand the rapidly occurring and serious systemic poison in suppuration about the gall-tract. Mr. Tait and others have found stones in hepatic abscesses. It is easy to understand that a stone formed and retained in the hepatic duct *may* induce an irritation and afford a suitable environment for the morbid effect of the common bacillus of the colon and other pathogenic germs. It is held by others, however, that gall-stones are invariably formed in the gall-bladder, as a result of the inspissation and sluggish flow of bile at that point.

What operation shall be done, and how it shall be done, depends upon the indications to be met by operative interference. It goes without saying that not every case of cholelithiasis demands an operation. Gall-stones in great numbers are found in the gall-bladder without having induced symptoms of their presence, the patient continuing in good health. Under such circumstances there is no indication and no need for surgical aid. Only when symptoms incident to gall-stones are marked and continuous are we justified in interfering surgically. This justification will not, however, be wanting sooner or later if obstruction from stone, stricture or morbid growth exists. Under such circumstances interference is imperative. The sooner the better, and this conclusion is fully sustained by the good results which are daily accumulating.

What are the operations applicable to the relief of gall-tract troubles? Prominent among the operative procedures which are now and have been in vogue for the past ten years are cholecystotomy, cholecystostomy, cholecystenterostomy and choledochotomy. Of these the operations upon which most interest is being centered, the comparative value of which is, to some extent, a matter of dispute, are choledochotomy and cholecystenterostomy. Cholecystenterostomy was an advance of no small proportions over cholecystostomy. The technique of this operation, as now performed, is so simple, where the gall-bladder is not too much contracted; its immediate effects are so strikingly good; its execution attended with so little danger, that it was heralded as almost an ideal operation. Where the obstruction is in the cystic duct, when the damage is due to retention of the secretions of the gall-bladder, drainage into the duodenum is a great improvement over drainage through an incision into the abdominal parietes. When the obstruction is in the common duct, by cholecystenterostomy the current of bile is turned through the cystic duct and gall-bladder into the duodenum and its usefulness to the animal economy is not lost, as is the case where it escapes by means of a cholecystostomy. By it drainage of the suppurating gall-tract is secured and systemic poison, i. e., cholæmia and septicæmia are prevented. Its ease of execution, its minimum death-rate and its immediate effects for good, mark it as an advance of large proportions. Nature pointed the surgeon to this way of draining the suppurating area around the gall-tract by not infrequently forming adhesions between the gall-bladder and duodenum and emptying the suppurating cavity into the intestine. For years various operators have essayed to imitate nature by trying to establish a gall-bladder and duodenal anastomosis by sutures; but not until the advent of that ingenious product of American invention (Murphy Button) was the technique of cholecystenterostomy, so simplified and so completely shorn of danger as to make it safe almost in the hands of the novice.

Dr. Murphy enumerates the indications for cholecystenterostomy as follows:

1. In all cases where it is desirable to drain the gall-bladder.
2. In all cases of perforation into the abdominal cavity where the duct must be obliterated by the reparative process.
3. In all cases of cholelithiasis where obstruction of duct is present, or where the reflex disturbances of digestion are marked.
4. In all cases of cholecystitis, either with or without gall stones.
5. In all profusely discharging biliary fistulæ, either following operations or as a sequelæ of pathological changes in gall-tract.

It will be seen that Dr. Murphy finds in cholecystenterostomy by means of his anastomosis button a means for the relief of a large portion of the morbid conditions incident to cholelithiasis. His contraindications for its use are mainly a too much contracted gall-bladder to get the button in, where the

adhesions are so extensive that we cannot get the duodenum up to the gall-bladder without risk of kinking it and inducing intestinal obstruction. Dr. Murphy himself and many operators, especially in this country, have furnished us with ample proof of the usefulness of this operation, which makes a new short route from the gall-tract to the intestinal canal. But a continued evolution of the subject of the surgical treatment of gall-tract diseases demonstrates to the satisfaction of many, whose opinions merit our regard, that cholecystenterostomy is not an ideal operation. It has a limited scope of application, and is only indicated for irremediable stenosis of the duct or where the impacted stone or obstruction, of whatever nature, cannot be removed. The ideal operation contemplates restoring the gall-tract to its natural state, reestablishing it as a drainage-tract. This is accomplished by removing the obstruction (the cause of the morbid changes) which, in a majority of cases, is an impacted stone. The operation of choledochotomy, i. e., incising the duct, removing the stone, immediate suturing of the duct and drainage, as a precaution, is the ideal operation.

For a time surgeons hesitated to incise and suture the duct for fear of leakage of bile. Experience shows it to be safe and curative in the full sense of the word. Curative, in that not only is drainage secured, but the cause of the morbid condition (the stone) is removed. As long as the stone remains in the duct it is an irritant, and inflammation, catarrhal or septic, and reflex gastric disturbances will continue. Cholecystenterostomy does not remove the stone impacted in the duct, and this is the weak point which limits its application. Choledochotomy is safe. The mortality of incising and suturing the duct is less than 18 per cent.

It is true that it is not always an easy matter to find the duct and stone, and sometimes it is impossible either to locate the stone or remove it after it is located, or to bring the bound-down duct into position to suture it; but an improved technique is rendering this a less formidable objection to choledochotomy.

Dr. Elliott, of Boston, finds great advantage in placing the patient in a reversed Trendelenburg position, and also urges that the sutures to close the incision in the duct be passed before the exposed stone is removed. Some authors claim that a cholecystostomy should be done in connection with incision and suture of the duct, if we have an existing empyema of the gall-bladder or suppurating cholangitis, for the better drainage of the suppurating tract; but others contend if we remove the obstruction in the tubes that sufficient and curative drainage will go on through the natural tract without additional aid. While many are better satisfied to drain with gauze the area of the sutured duct for a short time, still others, however, do not fear the leakage of bile and do not hesitate to close at once the abdomen.

An objection urged against cholecystenterostomy is the danger of infection of the gall-tract by the *bacillus coli communis* and infection of the liver;

but, admitting this possible danger incident to establishing a short route for infection from the duodenum to the liver, it is of small consequence compared to the good resulting from free drainage in cases of empyema and cystitis of the gall-bladder from stenosis of cystic duct, or in cases of cholangitis and cholæmia from common duct obstruction which cannot be removed.

Choledochotomy and cholecystotomy are, unquestionably, ideal operations where they can be done. Cholecystenterostomy, with Murphy button, while it only relieves the consequences and does not remove the cause, has saved, and will continue to save lives, especially by tiding over desperate cases too feeble from sepsis and cholæmia to stand a prolonged operation.

In many of its details the technique of the operation of choledochotomy is still imperfect, but, in spite of this, it is an ideal operation in its conception, and a mortality of less than 18 per cent. is wonderfully encouraging as to results. In this as in other fields of abdominal surgery the point should be urged that fatalities are not due to the operation, but to the want of its early execution. While it is often impossible to make the diagnosis of cholelithiasis and its consequences, or utterly impossible, in many instances, to differentiate one morbid condition from the other, it is fair to assume that choledochotomy will be more than ever an ideal operation when we can diagnose gall-tract diseases before long-existing cholangitis and local peritonitis has bound down the duct, matted the parts in its neighborhood and poisoned the system by septic or cholæmic infection.

TREATMENT OF NÆVUS.—Dr. H. R. Wharton states the varieties of nævus most commonly met with are the capillary, the port-wine mark (a form of the capillary of some size), and the venous nævus of purple or bluish color and at times containing blood-cysts. All forms of vascular tumors in young children should be carefully watched, and if any increase in size be noted they should be operated upon. In cases of capillary nævus, cauterization with nitric acid, by means of a match-stick, may answer; electrolysis is also of service in the treatment. The treatment of the port-wine mark is by multiple incision. In the treatment of venous nævus various methods have been employed.—*Medical News*.

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ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

Medical Attention to the Poor.

How shall the poor be supplied with medicines that are necessary for their diseased conditions, and with the most economy to the county or municipality? This is a question which must be answered, although difficult, and which depends greatly on the size of the town.

In large cities, such as New York, there is a Bureau known as the "General Drug Department," which is under the direct supervision of the chief chemist of the Department of Public Charities. All of the hospitals and dispensaries obtain their supplies by requisition on this General Drug Department. However, this system is not adapted to any North

Carolina town, and we must look to some more simple plan.

We do not know just what system is adopted in the city of Raleigh, but the Mayor of that city has recently had to call a halt on the too liberal distribution of "*expensive proprietary medicines*" to the poor. As the result of a called meeting of the Academy of Medicine to consider the matter, the physicians of the city have agreed to exercise greater economy in prescribing for this class.

In Wilmington bids are received by the County Commissioners for filling the prescriptions of the physician to the Out-door Poor only, which office is a creature of the Board of County Commissioners. These are now being filled for 10½ cents

each, the contract, running two years and the county pays for prescriptions written by the physician to the Outdoor Poor only. It is the practice here, when a prescription is written that runs above this established price, for the physician to turn over to the druggist sufficient prescriptions in blank to make up the price. This custom has not been generally known among the druggists, with the result that only one or two ever put in bids for the work. The system, properly conducted, is perhaps the most satisfactory and economical for small towns. The custom of writing duplicate prescriptions, however, to make up the price on an occasional expensive article, is wrong and unfair to the tax-payers. The druggist knows the average nature of prescriptions, and when he bids should estimate for the occasional expensive one. On the other hand, the physician, in writing his prescriptions for charity patients, should remember that the city is ministering to the *needs* of the poor and not to their *caprices*.

Providing for the attention of the poor at their own homes, as is done in Wilmington, is unsatisfactory, and we think that all those who are sick enough to be confined to bed, should be treated at the hospital. Treating them at home is very unsatisfactory in that their surroundings are nearly always unfavorable, and the patient is often left in the care of utterly ignorant and incapable persons, the administration of the remedies being entrusted to children in many cases. In fact, it is a farce, deluding the people into thinking

that the poor are receiving proper medical attention, when the fact is far different. In this city only one physician is now provided for this work, at the paltry salary of \$400 a year. At the rate of *twenty-five cents* a visit this allows for about thirty visits a week, while there are some seven or eight thousand who may claim his services. When it is remembered that in this service there is much obstetrical work, it can be readily seen that proper attention cannot be rendered by one man, even if the salary paid was sufficient to warrant him in giving all his time to the work.

In cities as large as Wilmington and some others in the State, we believe that the most economical and at the same time the most useful plan would be to treat all who are confined to their beds at the hospital, while those who are able to be about should be required to call at the office of the Charity Physician at certain hours each day, and there be examined and given either a prescription or a permit to the hospital. It might also be better that these prescriptions be filled at the hospital, where a druggist shall be provided. The dispensary of the hospital would be provided with drugs at wholesale prices and many prescriptions for which the county now pays 10½ cents would cost so little that the price could not be computed.

There is a class of patients who receive free attention and medicine who are not entitled to it. We refer to those suffering from venereal diseases. We think it a great injustice that the tax-payers should be bur-

dened with the cost of helping these persons out of the trouble into which their own wilful meanness has gotten them. Of course they must receive attention, but some way should be devised for making them pay for the

service. They should be charged up with the services rendered them at regular rates and be placed under arrest to work out the amount on the streets or in some public institution.

Reviews and Book Notices.

Practical Dietetics. With Special Reference to Diet in Disease. By W. Gilman Thompson, M.D., Professor of Materia Medica, Therapeutics and Clinical Medicine in the University of the City of New York, etc., etc. Cloth, royal octavo, 800 pages. D. Appleton & Co., New York, 1895.

In the wonderful laboratory of the animal body, with its complex chemical reactions and mysterious metabolic changes, what dreadful havoc must be wrought by some of the caprices of the modern civilized appetite. And when the incompatibilities and accumulation of waste products become more than nature can manage, she punishes the indiscreet person with disease in some shape. How important, then, it is, in attempting to cure disease, to give good heed to the warnings of nature and avoid those things which have caused or aggravated the trouble.

It is not enough to tell a patient to "be careful in his diet," to "not eat much meat," or to "avoid sweet or starchy food." If there are certain articles a patient should avoid, they should be written out for him, and a list made of allowable articles of sufficient variation to enable him to live in comparative comfort.

The instructions in the text-books on Practice are very unsatisfactory on this subject, and it is a satisfaction to have so complete and reliable a guide as the volume before us.

The scope of the work may be understood from a brief outline of the subjects discussed in the various sections. Part I. discusses foods and food preparation. Here we find, beside the chemical composition of the various classes of food, their relative value as force-producers, a comparison of various articles of food, and methods of preparation and preservation of different foods. Part II. treats of stimulants, beverages and condiments. Part III. takes up cooking, food preparation and preservation, and the quantity of food required. This is a most important subject, as much depends on the manner of preparation of food and its quantity, as well as its nature. Part V. studies food digestion and the conditions which especially affect digestion. The influence of temperature, exercise, rest, sleep and mental emotion on digestion is discussed, as are also the normal process of digestion and the elimination of food-waste. Parts VI. and VII. take up

general relation of food to special cases and the administration of food for the sick. Part IX. embraces over 300 pages and is devoted to diet in disease. The diseases are classified as is general in works on practice of medicine. Under each disease the causation and pathology, they may be related to the diet, are reviewed briefly and then the therapeutic treatment is thoroughly discussed. Part IX., under the heading "Rations—Dietaries," gives the rations as used by the army and navy in various prisons; also the diets of the leading hospitals. This part includes a chapter on infant-feeding and artificial foods. An appendix of recipes for nutritious dishes for invalids and an elaborate index complete this very useful work.

Clinical Lectures on Diseases of the Nervous System, delivered at the Hospital for the Paralyzed and Epileptic, London. By W. R. Gowers, M.D., F.R.S., Physician to the Hospital, etc., etc. Octavo, cloth, 280 pages. Price \$2.00. P. Blakiston, Son & Co., Philadelphia, 1895.

The volume comprises twenty lectures which have, for the most part, been published in the various English journals and noticed in the journals of this country. The lectures are not classified, but are given at random upon such subjects as Syphilitic Hemiplegia, Acute Ascending Myelitis, Mistaken Diagnosis, Syringo Myelia, Neuralgia. Lead Palsy, etc.

The world-wide reputation of the author is sufficient guarantee of the excellence of the lectures. At ten cents each any physician can afford to read them and will derive benefit therefrom.

Abstracts.

NEUROTIC VOMITING.—(Dr. Robt. Edes, *Amer. Jour. of the Medical Sciences*). Vomiting is not a disease even a symptom of disease of the stomach, nor any proof of the abnormality of its contents. It is a special complicated reflex, involving the abdominal muscles, the diaphragm, as well as the muscular coat of the stomach, especially its cardiac orifice, and often vaso-motor and sensory sensations having but little to do with the primary object of the act, which is, of course, to empty the stomach usually, but not always, at the beginning of the whole disturbance. This sensory irritation usually

comes from the stomach, in a considerable minority of cases the act may be provoked by a sensory irritation starting from any one of many points other than the gastric mucous membrane.

Considering, on the one hand, the ease and frequency with which the single, or occasionally repeated, act of vomiting, may take place, and how often its effect is a conservative or beneficial one, it is not strange that it should excite no alarm, but often be looked upon as desirable. It is, however, more to be wondered at that long-continued, obstinate, nervous or functional vomiting should

have received so little attention from systematic writers. In most works on general medicine but little is to be found beyond the mere statement that such a state of things may occur, with perhaps a more detailed description of "anorexia nervosa," which, however, is not exactly the same thing, and may be accompanied by little or no vomiting. One hardly finds a hint of its sometimes severe and even fatal results. The obstetricians are, however, better aware that the condition is not of so slight importance.

Fortunately, in the great majority of cases, it is true that the rejection of food is not constant and complete, and enough is retained not only to sustain life, but to justify the remark of Ewald that "the general nutrition suffers surprisingly little." If, however, this lucky failure does not take place, then the result is inevitable, and calling a patient hysterical does not enable her to live without food.

The nomenclature of these cases is not altogether a matter of indifference, inasmuch as it may have some influence on the mind of even the practitioner, and if not very carefully contrived is likely to lead to harmful misunderstandings between him, his patient and her friends. Until it is possible to relieve the words "hysterical" and "nervous" from a certain flavor of disapprobation and suspicion which still clings to them, or until we ourselves get rid of the habit of prefixing, at least mentally, the word "only" to these names, they should be used very carefully.

There is no symptom specially characteristic of functional vomiting.

The presence of other neurotic symptoms, either together with, or even more conclusively if ceasing in order to give way to, an attack of obstinate vomiting, would not be proof positive perhaps, but in the highest degree suspicious.

The absence, during considerable time, of vomiting of blood would be a strong point in favor of a neurosis; but when it is remembered that a moderate hemorrhage into the stomach may not be thrown up at all, but pass away, possibly unnoticed, by the bowels, we are again left at fault.

On the other hand, repeated vomiting of blood would be more conclusive of organic disease than anything else, except the finding of an epigastric tumor. A single occasion of hæmatemesis, even if copious, is of much less value. Hysterical hæmatemesis is not very rare, and may or may not be a vicarious menstruation. If repeated at regular intervals, its purport would at once be evident.

As to the assistance to be gained by an analysis of the stomach-contents vomited or withdrawn by the tube, we find that, unfortunately, the hydrochloric acid is increased in nervous gastralgia as well as in ulcer. Complete absence of free acid has also been seen in cases of nervous dyspepsia, and might obviously lead to the suspicion of cancer. I know of no observation made in a case of exactly the kind described above, that is, where the vomiting is a much more prominent symptom than the pain; but it is possible that a persistent absence of hyperacidity, together with the painless vomiting, would be a significant combination.

The treatment of neurotic vomiting presents few points of interest, so far as drugs and diet are concerned, from that employed to check vomiting from other causes. Almost any of the medicines called gastric sedatives or antiemetics may prove useful, but nothing is specific.

In the matter of diet, it is perhaps less easy to find some one article which will always be well borne than when the vomiting depends upon organic disease. It is, however, desirable not to make the search too limited, for the appetite may be capricious, and the choice will depend more upon it than upon chemical composition. Any physician can tell queer stories of what patients can and cannot eat or think they cannot. The hospital patient, who has been carefully fed by the rectum or on predigested milk or the like dainties, steals his neighbor's fried ham and eggs and thrives thereon. The consumptive's stomach, which has for days rejected the most ingenious and artistic concoctions, quiets down under the indigenous baked bean, only to be again aroused by a delicate and very expensive bean-flour called "*Revalenta Arabica*." The next effectual sedative is a piece of good solid pound-cake.

Articles of diet called "bland" are by no means more universally acceptable to the sensitive or disgusted palate than a smile of the same character is to the perturbed spirit.

Variety and "little and often" are two good principles to bear in mind; but there is no rule which will not be found to have important exceptions.

The more food-preparations of any kind the physician is familiar with,

the better. One may be retained when another is rejected, not because it is better, but because it is new.

The most important part of the treatment is by no means the easiest to formulate; I mean the moral control and psychical stimulus or sedation.

It must combine firmness with kindness, caution with boldness, and the whole with fertility of resource, common-sense and adaptability to the case in hand.

The act of vomiting is, to a certain very limited extent, directly under the control of the will; but much more completely is it, together with the whole process of digestion, indirectly subject to nervous influence.

How easy is it to disgust a sensitive person with any article of food by some unpleasant detail as to its source or the method of its preparation. It is certainly consonant with the views of hysteria held by some theorists that a fixed idea or some incident forgotten as to the ordinary consciousness, but retained in the "subliminal," may be constantly exciting the centres controlling the action of the stomach. In the second of the cases reported, it is more than probable that the idea of the patient that she was not going to get well had a good deal to do with determining the result.

If a patient believes that she must vomit she will do so. If, on the other hand, there are no nerve-endings in the gastric mucous membrane irritated by inflammation or neoplasm, no cells in the medulla to be compressed or poisoned, assurances that she need not and must not vomit,

are of more value than bismuth, creosote or ice. One gentleman proposes to check hysterical vomiting by the simple plan of bringing no basin.

Here, of course, is where the diagnosis is of supreme importance. The physician cannot give those hearty assurances of recovery with convincing vigor, nor exercise the necessary firmness in urging food, if he has a feeling that the patient may at any moment bring him to shame by a hemorrhage or a perforation, or her confidence be slowly undermined by the gradual development of a growth in the epigastrium.

He can feed her so as not to do harm in either case, and sometimes it may be that this is for a time all, until the diagnosis is established; and it is not necessarily any imputation upon the diagnostic skill of the practitioner that he may be obliged thus to temporize. It is not, however, until he can cut loose from the very limited bill of fare and assure his patient that the lactated milk or the malted glucose, to which her faith is pinned, is not her only hold upon life, and that it is time for her to enlarge her diet, that he is really reaping the benefit of a positive diagnosis.

OF THE COEXISTENCE OF CHICKEN-POX AND MEASLES IN THE SAME INDIVIDUAL.—(*Gazette des Hôpitaux*, June 15, 1895.) By Dr. Szczypiorski, of Longwy. The author reports 5 cases in which were observed distinct attacks of measles and chicken-pox. The eruption of chicken-pox appeared first in all the cases and had

not entirely disappeared when measles manifested itself. Since chicken-pox may be accompanied by a scarlatina-form eruption, which is polymorphous and resembles the eruption of measles, it is necessary to establish the differential diagnosis. The differentiation in these cases was easy on account of the coexistence of the two diseases, by the accentuation of the oculo-nasal and bronchial catarrh, and by the evolution of the eruption. In doubtful cases the diagnosis ought to be made, if possible, for it is very important not to confound scarlet fever complicating chicken-pox with a scarlet rash occurring with that disease. It is equally important that the family be informed of the true meaning of the eruption.—*International Med. Mag.*.

THE MEANING AND IMPORT OF CASTS IN THE URINE WITHOUT ALBUMIN.—(*Medical Review*, June 29, 1895.) By Dr. Ludwig Bremer, of St. Louis. A person who constantly or periodically passes urine containing casts, even without albumin, or perhaps with albumin in chemically demonstrable quantity, is not in good health. Such a person has a damaged constitution; his kidneys are, to say the least, vulnerable, and he is prone to contract and to succumb to other diseases. The irritative process which gives rise to the formation of casts may not amount to an actual state of inflammation, and there may not be the recognized signs of fully developed kidney-disease, and yet the subjective symptoms may be very pronounced. These symptoms are often unaccountable to the attending

physician because sufficient importance is not attached to the presence of casts in the urine of such persons.

In a number of cases periodic, intermittent albuminuria is the feature, and the albumin is in evidence only when a nerve-storm of unusual severity has set in. Such patients may be considered to have vulnerable kidneys. For a long time such patients may not present any albuminuria, the casts only being demonstrable, or even these may disappear, and the urine be absolutely normal; yet there is a dormant pathological condition which may be aggravated into activity. The diagnosis of vulnerable kidney may be doubted by other physicians. Aside from examinations which are based on chemical analysis exclusively, there are several reasons why the search for casts may be negative: first, microscopical incompetency; second, the kidney trouble may have become latent and the casts may be really absent; third, insufficient instrumental equipment—the centrifuge should always be used; fourth, the examiner, even if he find casts, may not attach any importance to them if unaccompanied by albuminuria. Among other reasons why the presence of casts in the urine is alleged to be compatible with perfect health is the finding of them in the urine of athletes after great muscular exertion. The athletes presenting this condition were certainly damaged men. The symptoms produced by this vulnerable kidney range over the neuroses, particularly neurasthenia, inexplicable gastro-intestinal manifestations and gripe symptoms, megrim and

other forms of periodic headache.—*Int. Med. Mag.*

TREATMENT OF GASTRO-INTESTINAL CATARRH.—During the acute attacks of this disease the best treatment, according to Coyle (*American Medico-Surgical Bulletin*, 1895), is liquid food or very light diet, excluding meat, adding digestives, if necessary, and saline enemata of warm or cold water, preferably cold, with morphine internally, to relieve pain. Counter-irritation for pain is useless. The strength of the enemata may be varied from two drachms to an ounce of borax, bicarbonate of sodium or salt to the quart of water. Enemata should be given night and morning, and repeated whenever the patient feels a desire for movement of the bowels. These enemata serve to cleanse the rectum thoroughly of shreds and mucus and prevent the accumulation of foreign matter, which will occur if the rectum is not washed out. A purge, preferably a saline, should be given at the commencement of an acute attack. The watery movement caused by a saline purge assists in detaching the membrane, and relief soon follows. The citrate of magnesium, Rochelle salt, or the always reliable sulphate of magnesium may be employed for this purpose. Heat to the abdomen for relief of the pain is of little use. It may serve to impress the patient that something potent is being done for her, and, as these cases are generally impressionable women, moral effects must not be lost sight of. Rest in bed and quiet, in addition to the above measures, will shorten the

acute attack. In the intervals between the attacks the diet must be restricted to those substances which give the patient no disturbances of digestion. Laxatives for the bowels, especially cascara in small doses, digestives, such as pepsin and pancreatin, whenever they appear to be necessary, and tonics for improvement of the general health, constitute the only efficient means at our command to render life endurable for these cases. In spite of all treatment,

the patient will from time to time suffer from fermentation in the stomach. Sulphite of sodium, in from 5- to 10-grain doses after meals, does more for this annoying symptom than anything else. With our present knowledge, the disease must be classed as one of the chronic incurable diseases that do not furnish much comfort to the medical attendant, except as affording an opportunity for experimental therapeutics.—*Therapeutic Gazette.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE NAVY.

For the week ending September 21st, 1895.

September 14.—*Guest, M. S.*, Assistant Surgeon, detached from the "Minnesota" and ordered to the "Vermont."

Peters, R. C., Surgeon, detached from the "Minnesota" and ordered home and placed on waiting orders.

September 16th.—*DeValin, C. M.*, Assistant Surgeon, detached from the "Vermont," ordered home and given six months sick leave.

Bagg, C. P., Assistant Surgeon, ordered to the "Vermont."

Bertolette, D. N., ordered home and placed on waiting orders when the "Atlanta" goes out of commission.

September 19th.—*P. H. Bryant*,

P. A. Surgeon, detached from the "Baltimore" and ordered to the "Petrel."

Arnold, W. F., P. A. Surgeon, detached from the "Petrel" and ordered to special duty in investigating the plague in China and cholera in Japan.

MARINE HOSPITAL SERVICE.

Banks, C. E., P. A. Surgeon, to proceed from Washington, D. C., to Vineyard Haven, Mass., for temporary duty, September 11, 1895.

Glennan, A. H., P. A. Surgeon, is granted leave of absence for five days, September 3d, 1895.

Wertebaker, C. P., P. A. Surgeon, is granted leave of absence for three days, September 3d, 1895.

Houghton, E. R., P. A. Surgeon, is granted leave of absence for twenty-three days, September 12th, 1895.

Cofer, L. E., Assistant Surgeon, is granted leave of absence for seven days, September 3d, 1895.

WRIGHTSVILLE MEETING OF THE BOARD OF MEDICAL EXAMINERS.

The Board of Medical Examiners met in extra session at Wrightsville, August 26th. There were present, Drs. William H. Whitehead, L. J. Picôt, G. W. Long, J. M. Hays, J. M. Baker, H. B. Weaver and Thomas S. Burbank. All of the examinations were written, and the same grade of 80 per cent. required. There were twenty-one (21) applicants, and of these fourteen were granted license.

It may be of interest to show the colleges from whence the applicants obtained their degrees.

Drs. E. A., Moye, Greenville, D. E. Seviér, Asheville, J. T. Seviér, Asheville, W. P. Holt, Willardsville, Jefferson Medical College, Philadelphia; S. M. Mann, Manteo, College of Physicians and Surgeons, Baltimore; F. E. Hartsell, Concord, J. J. McCampbell, Morganton, Baltimore

Medical College; W. L. Hilliard, Asheville, C. H. Barnhardt, Concord, Jefferson Medical College, Philadelphia; H. W. Carter, Fairfield, University of Virginia; C. J. Sawyer, Bellcross, College of Physicians and Surgeons, Baltimore; J. P. Millard, Asheville, South Carolina Medical College, Charleston; W. T. Fuller (col.), Reidsville, Leonard Medical College, Raleigh; B. R. Graham, Wallace, University of Virginia.

The highest grade was 96. This mark was made both by Drs. E. A. Moye, Jr., and B. R. Graham. The lowest was 54½.

Board adjourned Friday night at 2 a. m.

WM. H. WHITEHEAD, M.D.,
President.
L. J. PICÔT, M.D.,
Secretary.

Obituary.

ROBERT BATTEY, M.D.

In the death of Dr. Robert Battey, which occurred at his home in Rome, Ga., on the 27th of September, the South has lost a son who has done much to honor her before the world.

Dr. Battey was born in Richmond county, Georgia, on the 26th of November, 1828, and so was nearly sixty-seven years old at the time of his death. He graduated from the Philadelphia College of Pharmacy in 1856, and from Jefferson Medical Col-

lege the following year. He filled temporarily the Chair of Obstetrics in the Atlanta Medical College, and was also editor of that excellent journal, the *Atlanta Medical and Surgical Journal* from 1873 to 1876.

He served during the civil war in the Confederate service, having enlisted as surgeon of the 19th Georgia Volunteers. He also had charge of various hospitals.

Dr. Battey was a distinguished

surgeon, possessing unusual skill and displaying much originality for the operative relief of various conditions. That operation which has made him most widely known and bears his name, was that for the removal of the ovaries, with a view to effecting a change of life in women. He hoped thereby to effectually remedy certain incurable maladies in women. He also devised, in 1858, a new method for treating club-foot, by the use of carved wooden splints and roller bandages. He has many diffi-

cult surgical operations to his credit, and was the third surgeon to successfully perform the operation for vaginal ovariectomy, which he did in April, 1874.

Dr. Battey was a member of the Georgia Medical Association, of which he was elected President in 1876. He was also a member of the American Medical Association and the American Gynecological Society.

He was married, in 1849, to Miss Martha B. Smith, and was the father of fourteen children.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

We give on another page an official report of the meeting of the Board of Examiners, held at Wrightsville, in August. This report will correct an error that occurred in the list of licensees in the issue of September 5th.

The death is announced of Dr. John A. Graham, surgeon at the Virginia Military Institute, Lexington, Va., aged 62 years.

The firm of Wallace Brothers at Statesville, Wholesale Dealers in Roots and Herbs, made an assignment, with assets of \$75,000; liabilities not stated.

The drug firm of Renz and Henry, Louisville, Ky., has been dissolved. Mr. Henry continues the business under the name of Henry Pharmacal Company.

Dr. Albert L. Gihon, Medical Director in the United States Navy, has been placed on the retired list, after an active and efficient service of more than forty years.

At a recent meeting of the Trustees of Jefferson Medical College, Philadelphia, the honorary degree of LL.D. was conferred on Dr. John Collins Warren, Professor of Surgery in Harvard University.

The *Medical Record* learns that in Sweden and Norway a person cannot be legally married until after the production of a certificate of vaccination.

In a communication to *Garden and Forest* on the final outcome of the turpentine industry in the South, L. J. Vance concludes as follows:

"The American turpentine workers still continue to follow the old-time methods of tapping the trees for their sap. They have made few changes and have adopted few improvements. They cut a deep, broad "box" at the base of the tree, and then the surface above the box is laid bare. The trees are worked for four or five seasons, when they become practically exhausted of their sap. The forest is then abandoned to the elements, to the bark-beetles and pine borers, and finally, the splendid trees are blown, burned or cut down. The French turpentine worker cuts no deep box into the tree, but uses a pail, into which the resin or crude turpentine is conducted by a gutter. He makes only a small chip about three or four inches wide, and this is enlarged from time to time. After five seasons' working, the trees are given a rest of several years, and so, by alternating periods of tapping and of rest, a tree can be profitably worked for fully fifty years. The French also take measures to profitably regenerate their pine forests and to keep the trees strong and uniform.

"If our turpentine workers understood the first principles of forestry they would modify their destructive methods. With more knowledge, based on experience, the day will come when the Southern people will see that good husbandry consists in management, not destruction, of their forest resources; that some precautions and some protection are necessary against fire, as well as individual greed; that the present policy of the

turpentine workers is lamentably wasteful and short-sighted; in other words, that it is more profitable to work the pine forests for fifty years, instead of five years; and, finally, that the lumber and turpentine industries, while changing the face of Nature, and even the climate of the country, are slowly, but surely, making loss and trouble for this and succeeding generations"—*Amer. Jour. of Pharmacy*.

RATIONALISM IN MEDICINE.—Dr. Alfred H. Carter says that the whole fabric of rational medicine rests upon a tripod, of which the three divisions are: clinical observation and study of the signs and symptoms of disease; study of the pathological seats and processes; study of remedies.—*Brit. Jour. of Dental Science*.

Blackbasse—How's your health this summer?

Laketroutr—It was very good, I thank you, until the fishing season opened, but since then I've been troubled with worms, and at times I've been almost in seine.—*Ex.*

TROUBLES IN THE COMMUNITY.

The coal-dealer died of colitis,

The twine-maker had the chord-ee;

The farmer's attack of oat-itis

And rye-neck was painful to see;

The wheelman went blind with cyclitis,

The bridge-builder suffered from piles,

The servant girl had Sal-pingitis,

And the cook was all covered with b'iles.

—*Exchange*.

Reading Notices.

Notwithstanding the large number of Hypophosphites on the market, it is quite difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation and possesses an advantage over some others in that it holds the various salts, including Iron, Quinine and Strychnine, etc., in perfect solution, and is not liable to the formation of fungous growths.

A SUPERIOR REMEDY IN VOMITING OF PREGNANCY.—Gentlemen: About two years since I received from your representative, Mr. A. J. Shick, a sample of your preparation "Ingluvin." Have used it extensively in my practice and find it far superior to other remedies in vomiting in pregnancy, dyspepsia and in cases of indigestion. I am convinced that no other remedy can be prescribed that will act with the promptness of Ingluvin. WALDO BRIGGS, M.D.

St. Louis, Mo.

We know of few more aggravating occurrences than to try to dissolve a slowly soluble hypodermic tablet, especially when the case is an urgent one. The experience is quite general, we take it, that some tablets, while they are remarkably soluble when freshly prepared, soon lose this virtue and become hard and sometimes apparently almost insoluble. To prevent this deterioration many experi-

ments have been made in the large laboratories of some of the prominent manufacturers, and several firms claim to have found the means of reducing this deterioration to the minimum. Among the most successful along this line of work is that old favorite Southern firm, Sharp & Dohme. How they accomplish it we do not know. What is of more interest to the practicing physician is the fact that their tablets dissolve almost instantly in a few drops of water.

ANÆMIC PATIENTS WHO HAVE MALARIAL CACHEXIA.—Dr. T. D. Crothers, editor of "The Quarterly Journal of Inebriety," published under the auspices of The American Association for the Study and Cure of Inebriates, and who is an authority, on neurosis, writes in his last number as follows: "Antikamnia and Quinine are put up in tablet form, each tablet containing two and one-half grains of Antikamnia and two and one-half grains of quinine, and is the most satisfactory mode of exhibition. This combination is especially valuable in headache (hemicrania) and the neuralgias occurring in anæmic patients who have malarial cachexia, and in a large number of affections more or less dependent upon this cachectic condition."

 In writing to advertisers please mention this JOURNAL.

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No. 8.

Original Communications.

REPORT OF SURGICAL CASES.

BY DAVID T. TAYLOR, M.D., Washington, N. C.

INTERSTITIAL FIBROID—WEIGHT SIXTEEN POUNDS—SUPRA-VAGINAL HYSTERECTOMY—RECOVERY.

Mrs. H., aged 39 years, consulted me after having sought relief in many quarters in vain. The tumor was quite large and was first noticed ten years before. She was wasted about the chest and arms, like a case of old ovarian disease. The abdomen measured forty-two inches at the umbilicus. The tumor was firm and solid throughout, and as the result of spinal curvature in the lumbar portion, the growth was well pushed up under the sternum and ribs; no trace of the ovaries could be detected. For several years she suffered great inconvenience from œdema of lower extremities and embarrassed respiration as the result of pressure. Menstruation was always in excess, and for the last fifteen months was so profuse as to threaten life at times. Her life prospects were anything but bright. I operated on her in a private house under antiseptic precautions as nearly as I possibly could under the circumstances. Ether was given. The first incision measured eight inches. On the right side the broad ligament rose high up on the tumor; the left broad ligament was largely spread over the half of the tumor as high up as the ribs. The opening was then enlarged four inches, and by hard pushing and patience the tumor was moved forward as far as its connection on the left side would permit. The ovaries were so embedded in the tumor they could never have been removed. The right broad ligament was transfixed by silk sutures, secured and divided. All bleeding from the tumor was prevented by strong locking forceps. The fibroid was now more easily dealt with. It was drawn forward and the left broad ligament treated in the same way. I now applied a strong wire ecraseur around the cervix, low down, and

*Read before the North Carolina Medical Society, May 15, 1895.

the whole mass was cut away, the stump showing a section of the cervix in the center. Owing to many adhesions there was much trouble in finding some bleeding points among the loose cellular tissue of the huge gap now left. Secondary hemorrhage into this loose tissue was not one of the smallest-risks of the operation. All the parts were now wiped dry with hot carbolized sponges and the wound closed with silk sutures down to the stump in the lower angle of the wound. The first day was passed fairly well, pain relieved by injections of morphia. Temperature was never above 101° and pulse never above 120. Each day I would tighten up on the wire until the thirteenth day, when it cut through, leaving a healthy wound, which healed beautifully by granulation. The pulse and temperature were now normal.

Eight weeks after the operation she left for home. She is now a strong woman in perfect health and can do anything. For valuable assistance I wish to thank some of the local physicians of my town.

REMOVAL OF UTERINE APPENDAGES FOR DISEASE.

Miss T., aged 29; for the past eight years gives a history of suffering constant distress in the pelvis and the back.

Examination.—Appendages enlarged, sensitive and low down in Douglas' cul-de-sac; she said her sufferings were indescribable; that her pain continued all the while, but her agonizing distress commenced some days before menstruation and continued during the period. She is extremely nervous and irritable, with a feeble pulse and in an exceedingly low state of health. Her suffering was so great during the period, I administered injections of morphia, and, after several days of suffering, she looked as if she had been through a long spell of sickness—pale, feeble and care-worn. Knowing she had been treated regularly by good physicians without any improvement, and nothing gave relief; it was evident there was but one way to help her; so, after proper preparation and thorough antiseptic precautions, I removed the uterine appendages. There were considerable adhesions and great difficulty in removing the structures. The patient did well, and at the end of five days was apparently relieved; had no more suffering, and now says her health is excellent; has gained her flesh and is able to work.

Mrs. K., aged 40 years; has suffered many years; in bed great portion of the time. The patient was weak, emaciated and anæmic; she complains of constant pain in the pelvis and bearing down. For the last three years has had at intervals severe uterine hemorrhages and says that during the last eight months she has had a constant flow with hardly a day's intermission. The patient was extremely nervous and hysterical. Laparotomy was performed. The appendages were removed. The ovaries were cystic and the tubes in a high state of inflammation.

The patient made an excellent recovery without a bad symptom. She says she has not been as well in fifteen years.

Mrs. S., aged 42 years; has suffered at intervals for the past seven years with intense pain over the region of left ovary and in the back. For the past ten months the pain has greatly increased at the menstrual period, radiating down into the left hip. She was no longer capable of attending to her duties and was becoming a confirmed invalid. In this case it seemed manifest that the only way to relieve the patient from continued suffering and chronic invalidism was to remove the hopelessly diseased structure. Laparotomy was performed. I removed the left ovary and tube. The right ovary seemed all right and in good condition, and I was glad to feel justified in leaving it.

The patient recovered without a bad symptom. Temperature was never above normal. Her general health is now very much better in every way, though I must say, in the third week after the operation, the pain returned in the left side, though not severe. I believe now, by the use of massage and time, she will entirely recover, as the operation has only been performed a short time, and at the time of operating there were many adhesions; ovary was atrophied and tube chronically inflamed.

In the cases I have reported the uterine appendages were removed on account of their diseased condition. The success in these cases I attribute to (1) antiseptic technique; (2) no loss of time while operating; (3) provision against shock, as I am quite certain prolonged anesthesia and manipulation within the peritoneal cavity swell the list of mortality.

A. J., aged 19 years, presents himself with the following history: Fourteen months ago had tibia and fibula of one leg broken at lower third by a carry-log running over his leg. A physician set the broken limb in plaster of Paris. The pain was intense that night, and the patient became restless. The next morning he noticed the plaster had cracked and become broken in places. No doubt at that time the bones were separated and became misplaced, not having any support. A neighbor was called who adjusted splints the best he could. Since that time the boy has never been able to put that foot to the ground or even to stand or walk upon it. Upon examination, I find a shortening of that leg two inches; the limb terribly deformed; both tibia and fibula overriding each other; he was totally unable to use it. I decided to operate and save the leg if possible. I cut down over the seat of fracture; found I could not break the bone over, as union was so complete. I sawed the bones in an oblique manner half an inch off each end of tibia and fibula. I then divided the tendo Achilles to overcome muscular contraction; then, finding I could adjust the bones in position, I drilled three holes through the tibia on either side and through the fibula. I then used stout gatgut to suture them together, put the leg in proper position, sutured the external wound with silk and dressed with iodoform gauze. I then applied plaster of Paris from knee to toe. The boy rallied promptly from the anesthetic, which lasted two hours. I gave iron as a tonic. His appetite was good throughout the entire time of his confinement, which was three months. His temperature and pulse scarcely went above normal, and as the result of operation the deformity is entirely overcome—shortening one and one-half inches, which is made up by a thick sole on his shoe. He is now able to walk and go where he pleases. This eight months after the operation.

SOME PRACTICAL HINTS DRAWN FROM AN OBSERVATION OF FIFTY YEARS CONCERNING THE MANAGEMENT AND TREATMENT OF PULMONARY PHTHISIS.

BY A. B. PIERCE, M.D., Weldon, N. C.

For all practical purposes I divide pulmonary phthisis into tubercular and catarrhal consumption. And I remark that both may, under certain circumstances, be tubercular and catarrhal, and catarrhal may exist alone without the tubercular, but both more or less partake of the same symptoms before a fatal termination is reached.

As to whether the tubercular diathesis is dependent upon a specific germ, I shall not discuss, but give it as my opinion, from all the lights before me, that it is. It does not follow, however, that the other form, catarrhal, is dependent upon the same cause. That the catarrhal may exist without being dependent upon a specific germ, is equally clear to my mind for the following reasons: Previous to the changed condition of the colored race there was not one case in several thousand where consumption was ever developed in that race of people. So prevalent was this sentiment among the profession, that an eminent physician of Halifax county, in the forties, gave it as his opinion in court that he never knew a negro to die with consumption. Though this may have been an extreme opinion, yet, by almost universal consent, the profession was a unit on that subject, that it was the rarest occurrence for a negro to die with consumption of the lungs. But this, you may say, proves nothing, as the germs may have been there, but the circumstances were not favorable for their development. This would be begging the question, and as such the position would not be tenable.

With regard to the contagiousness of the disease, the evidence seems to favor the opinion, to a limited extent, especially the tubercular form. I am disposed to think, however, that too much stress is laid on the germ theory of the disease, and consequently inconvenience and erroneous views very often arise from the enforcing of such ideas.

The germ theory of disease is very often a cloak for ignorance and a want of observation and clinical experience.

If the germ theory be correct in all cases of consumption, it would seem natural to find out the germicide and apply the remedy, and thereby you have accomplished a great deal towards solving the problem of curing consumption. Common observation and common-sense teaches us that something else is to be done in order to ward off the attacks of this dire disease.

As I have already hinted, the negro race are peculiarly liable, since their changed condition, to what we term catarrhal consumption. I can account

for it in no other way than their changed condition. Whereas they were well fed, well clothed and slept mostly with plenty of air to aërate the lungs, and took plenty of exercise, sleeping a good deal in the open air. They are now ill-fed, badly clothed and crowded in ill-ventilated houses to sleep, thus creating bad and insufficient nutrition and reducing the vital forces below the normal standard of health. In this way the system falls an easy prey to mal-nutrition and irregular habits.

Since this change in their condition I have seen whole families die out with this condition of system, when I could account for it in no other way. Mal-nutrition, produced from cold and hunger, I consider the cause of the whole trouble. I notice that females are more liable to this condition than males, due partly, I suppose, to that condition of system peculiar to the post-partum puerperal state.

Another reason why more females are attacked with this disease than males, is that the most of them have become perfectly thriftless and lazy, thus fostering a condition of system favorable to the development of such diseases.

It is truly alarming to witness the number who are annually dying from what we term catarrhal consumption. I can see no remedy for this state of things but a return to industrious habits and a change of diet.

The remedy for these evils next demands our attention. As to the negro population, I see no remedy so long as their condition is unchanged. The better portion of them, who are thrifty and industrious, may improve, but they are very few.

As to the treatment of pulmonary phthisis, I regard it as more preventive and palliative than anything else. At no time is the aphorism, "Throw physic to the dogs" more true and appropriate than when applied to the treatment of pulmonary phthisis. In the first place, I lay down some general rules: Studiously avoid everything that would disorder the digestion, such as cough mixtures and the like, and take nothing that would lower the vitality of the system or prevent the highest type and best grade of nutrition. Climate, it is true, has something to do with the treatment of the ailment, but in order to be effective it must be utilized in time, before the vital forces are lowered too far.

A high, dry atmosphere, combined with the inhalation of pine fumes, is doubtless conducive to the healthful state of the pulmonary vesicles. A sea-faring life and horse-back exercise I regard as the most favorable conditions to promote the due performance of the functions of the lungs. But few, however, can avail themselves of these remedies, and we have to resort to other treatment in the majority of cases.

The use of the cold bath, with proper restrictions, I regard as one of the greatest preventives to the progress of the disease. I do not go as far as some in recommending ice-cloths to the chest. The shock to the heart in delicate persons is too great, and I regard it as a hazardous remedy; but

there is a way gradually to apply the cold bath to the chest and lungs which is not at all hazardous.

My plan is to wash the head and neck and whole chest daily with cold water, with the naked hand, which will enable you to apply the remedy without the shock to the system which results when it is applied in other ways. That system of exercise that expands the chest most and exposes the most breathing surface to the oxygen of the atmosphere, I regard as the most salutary and effective treatment for consumption of the lungs. Some cases of tubercular consumption of low vitality and feeble circulation may be benefited and life prolonged to an indefinite period by the moderate use of pure corn whiskey at each meal, and the only objection to the remedy is the danger of forming the habit of drinking and continuing the treatment too long and in too great quantities. It is not adapted, however, to all cases of tubercular consumption, and especially not to cases of catarrhal consumption. There are certain occupations and professions that should never be engaged in by patients having weak lungs or consumptive tendencies. Engage in no employment where close confinement in-doors is imperative and where fine particles of dust or cinders of any description are a part of the breathing atmosphere. Avoid all occupations that do not afford plenty of fresh air and exercise. If you are a book-keeper, you must quit the desk and seek the pure air of heaven. If you are a professor or teacher, you must quit the books and benches and revel amid nature's volumes and seats prepared in the forests and fields for God's creatures who are wearied and burdened with care.

To sum up the treatment of consumption in a few words, I would give the following directions:

1. Eat all the nutritious food that your stomach will digest.
2. Take all the out-door exercise your physical strength will admit of.
3. Breathe all the air your lung surface will admit without pain.
4. Employ your time in some agreeable occupation that will keep your mind from yourself and your disease.

Outside of a sea-faring life, I know of no employment more conducive to the health of a consumptive than the profession of a country doctor. A good horse, bridle and saddle and a pair of medical bags forms his armamentarium, and if he plies them well, he will be placed in the most favorable condition to enjoy health and a good conscience. Your humble servant is an exemplification of what he preaches. Two of my uncles and a sister died of pulmonary consumption, and until I was 35 or 40 years of age I only weighed from 125 to 130 pounds, threatened all the time with pulmonary trouble; but, adopting the treatment I recommend, I weighed, before I was 50, 170 pounds, and now I have passed my three-score years and ten, and am still practicing medicine in the country—a country doctor.

GOOD DRINKING-WATER VS. MALARIA—TWELVE MONTH'S EXPERIENCE WITH MALARIA ON ROANOKE RIVER.

BY GEORGE H. WEST, M.D., Weldon, N. C.

This is a subject pregnant with interest to the general public as well as to the medical profession. It has been the generally accepted opinion of the profession for years, and I may say until 1886, that the poison of malaria was gaseous in character. Since that time a complete revolution has taken place, by the aid of the microscope, through the labor of Laveran and numerous other investigators, who have corroborated his testimony; and from these scientific investigations, it is generally conceded that "malaria is due to the introduction of plasmodium malarie into the system," and to prove that this poison is taken into the system through the medium of drinking-water will be the object of the following remarks I shall offer for your consideration.

From the remotest antiquity swamp-waters and others of a similar character have been regarded as unwholesome and productive of febrile diseases; but since the time of Lancisi the theory of a malarial exhalation from a rich soil absorbed into the system from the air, has been accepted by the profession as explanatory of all cases which occur, and the possibility of the transmission of the poison or disease-essence by water, because forgotten. Vestiges of the old doctrine remained, however, in all malarious countries, not so much in the professional mind and literature as in the opinions of the people. The natives of malarial sections very generally continued to regard an impure water as the cause of paroxysmal fevers, and medical men from time to time suggested the possibility of the transmission of such diseases by the water supply or recorded instances where the supply was conceived to be connected with the appearance of a localized epidemic.

I shall offer only my own experience and observation during my twelve months residence as physician to the State Farms on Roanoke river. When I assumed control of the medical supervision of the convicts, May 9th, 1894, I found malarial diseases quite prevalent, in fact, almost to the exclusion of all other diseases. On Halifax Farm, situated three miles from Weldon, I found sixteen cases of intermittent fever in the wards of the male and female hospitals. On Northland Farm, two and a half miles from Halifax, directly on Roanoke river, I found eleven cases of intermittent fever, and from examination of case-book of hospitals on both farms I found malarial trouble prevailed during the months of January, February, March and April. This state of affairs still continued until I began to investigate the source of the water supply. From January 1st until August 31st there was a force of convicts working on the dikes of Roanoke river, on Northampton Farm, directly

*Read before the North Carolina Medical Society, May 15, 1895

opposite the town of Halifax, using spring water, and in the month of June (the force averaging 70 men) there were thirty-nine cases of intermittent and one of remittent fever. From the 1st to the 31st of August I had the drinking water carried from the quarters, two miles distant, in barrels, and strange to relate, not a single case of malarial trouble occurred. After this time, the force having completed the dike, were put to work on the farm, using spring water on different parts of the plantation, and, as the result, intermittent fever again manifested itself.

On several places on this farm they have driven pumps, and when I could get the overseers to get their water supply from *them*, which necessitated a little more trouble and distance to carry, the change was very gratifying and the sickness amounted to almost nothing.

On Halifax farm, from January 1st until May 1st, 1894, there were fifty-one cases of intermittent fever; from January 1st to May 1st, 1895, five cases. This result I attribute to water used from driven pumps.

On Northampton farm, from January 1st until May 1st, 1894, there were one hundred and twenty-one cases of intermittent fever; from January 1st to May 1st, 1895, thirty-two cases. Prior to May, 1894, there were several cases of hemorrhagic malarial fever, or, as the natives term it, "*yellow chills*," among employees and convicts on Northampton farm, and one last August, which proved fatal, on an adjoining farm. I did not see the case (not doing any private practice), but I learned the water supply was derived from springs and surface wells.

On the 1st of June, 1894, the Roanoke Rapids Power Company hired fifty-five convicts from the Penitentiary authorities to do some excavating—digging a bulkhead to convey the water from the canal to the river, furnishing the water power for two large mills that are now in course of construction. Unfortunately, the camp was located in a very unhealthy situation between two canals and a low, marshy bottom on the east, subject to overflow from Roanoke river. I will say here that I had nothing to do with the location of this camp, and after I was assigned to the medical care of the same I protested against the location, as figures will show.

For the first month there were thirty-one cases of intermittent fever, eleven cases of dysentery and twenty of diarrhœa. I was fully aware that in organizing a new camp, with men fresh from the Penitentiary, the greater portion not accustomed to work, being sneak-thieves and loafers around the towns, there would be more or less sickness until they became accustomed to the work, but I was not prepared to find this amount, and I began to think the trouble must be due to the water. After investigation, I found they were using water from a spring and an open shallow well. This I ordered stopped, with a very gratifying decrease in the amount of sickness for July.

Since then the health of the camp has steadily improved and I seldom have intermittent fever to contend with. I am not a prophet nor the son of a prophet, but I predict, and that in the near future, the malarial problem will be solved simply by the use of good drinking-water.

DYSENTERY.*

BY JAMES A. BURROUGHS, M.D., Asheville, N. C.

The propitious season for the various diseases of the digestive tract is with us, so we propose to offer a few ideas on dysentery, as this is the one trouble of all diseases of the alimentary canal, that gives the physician the greatest amount of care and anxiety.

The term dysentery is used to designate an inflammatory disease of the large intestines, characterized by nausea, cramps, frequent dejections of mucus and blood, followed by tenesmus.

Dysentery may be acute or chronic. The acute is either sporadic, endemic or epidemic. Simple, acute, sporadic dysentery is generally preceded by loss of appetite, slight fever, acceleration of heart's action, abdominal pains with loose, watery, feculent stools. After the establishment of the characteristic dysenteric stools fecal matter is practically absent and tenesmus and cramps increased, with all the symptoms aggravated, with more or less prostration and yielding up of the vital forces, according to the severity of the case and the previous physical condition of the patient.

The severity of the disease, in the majority of instances, is in proportion to the quantity of blood and mucus evacuated and constancy of the tenesmus.

Large bloody stools, with persistent tenesmus and nausea, will exhaust the vital powers of the strongest in a short time, to be followed by collapse and death.

Some of the predisposing causes to dysentery are, seasons, atmospheric changes, high solar temperature, bad hygiene, age, diet and neglected diarrhœa. Summer is the season when dysentery prevails in the greatest degree and is most fatal; June, July and August are the months when the largest number of cases occur, and during which there is the highest mortality. Elevation of temperature in the hot months is the chief cause of the prevalence of the trouble and great mortality, especially in children. It is true that sporadic cases of dysentery can and do occur at all seasons and in all climates, but it never appears in epidemic form except during the hot months, with a high solar temperature. Little of the trouble is observed in this pure, high, dry atmosphere. Its home is not here, it belongs to the impure, polluted air of over-crowded cities and the damp, boggy lowlands of the swamps and rivers.

When the physician is called to a case of dysentery the stomach and bowels are, in the majority of instances, freed from undigested food and fecal matter by the previous vomiting and purging. We find the gut in an acute catarrhal condition, exuding serum, mucus, blood and pus, with numerous

*Read before the Buncombe County Medical Society, at Asheville, N. C., August 5, 1895.

and rapid multiplication of bacteria, causing a fermentation and regeneration of gases. The mucous membrane of the rectum is irritated and swollen, producing great pain and tenesmus.

Various plans of treatment have been in vogue, from the old-time venesection with leeches to the rectum, down to our modern practice, rest and antiseptics.

The India or ipecac treatment has done poor service in my hands, without the addition of a hypodermic of sulphate of morphia with atropia, to hold the stomach quiet until the ipecac was absorbed. In justice to ipecac, with the above suggestion, I feel warranted in stating that, in the year 1884, it was the means of saving a young man's life in my practice.

The rational and successful plan of treatment consists in rest, alkaline antiseptic enemas and diet.

The first thing to do after placing patient in bed is to give a large, hot soda-water enema, impregnated with turpentine, turn the patient on left side, passing the small tube well up into the rectum, if needs be, by the sigmoid flexure. As soon as the enema has passed give a hypodermic of the sulphate of morphia and atropia. In about six hours the effects of the hypodermic will begin to wear off and the tenesmus return with the characteristic discharge. We give another large, hot soda-water enema with menthol, grains xxx, followed by a hypodermic, as before. These large, hot soda-water enemas, alternating with the turpentine and menthol, are used every six hours, followed by the usual hypodermic; it is necessary to have these enemas very hot, as we get a greater sedative and astringent action. The large enemas, as above described, if carefully administered, not only remove the gases, debris and all effete, irritating material from the diseased bowel, but practically disinfect and sterilize the canal.

It is a source of pleasure to note the thermal record after these enemas. Before the menthol enema is completed the patient will tell you that the bowel is turning into ice and that he is getting cold and can taste the menthol; with this they lift large quantities of gas from the stomach, which, they insist, is the menthol that has come entirely through, and I guess they are correct, as menthol is the most penetrating and permeating antiseptic that we have. Menthol seems to have a special, I may say, specific, action in dysentery, and the practitioner who uses this drug as above described, will not be disappointed.

Turpentine is a good and reliable antiseptic, and given in this way is placed in direct juxtaposition with the diseased mucous membrane, where it belongs, producing the effect desired with more certainty and promptness than when administered by the time-honored way of the mouth.

Two large tablespoonsful of soda bicarb. will render the enema sufficiently alkaline to counteract the acid discharges.

Absolute rest in bed is imperative from the beginning in every case, no

matter how mild it may be. The patient should never assume the sitting posture, but use the bed-pan on all occasions. Straining in the sitting posture irritates the disease and aggravates the tenesmus, besides there is great danger of heart-failure.

The hypodermic of morphia and atropia eases the pain, quiets the stomach, placing the bowels at rest, greatly lessening the number of stools.

Judicious feeding of these patients is of great importance and often taxes the knowledge and skill of both physician and nurse. Such food as is digested in the stomach only should be given. Skimmed peptonized milk may be administered at suitable intervals after the first twenty-four or thirty-six hours. After twenty-four hours more, in connection with the milk, eggs may be taken, from two to four each day, as may be practical. No other food should be administered for at least three days after all signs of the colitis has subsided.

Papoid, scaled pepsin and bismuth sub-nitrate are the only drugs indicated in this trouble, and a powder containing these three, administered every four hours, is all that I ever prescribe by the mouth—this powder being especially indicated when complicated with gastritis.

To control fever, each of the coal-tar products are contraindicated and the ice-bag and sponge bath are amply sufficient and the only safe, scientific and practical way to hold a temperature below the danger line.

If the heart's action is feeble and the patient pretty well exhausted, use French brandy "Hennessee XXX;" this will give you the best satisfaction of all the alcoholic and heart stimulants combined.

If much tympanitis and tenderness of bowels exist, frequently repeated turpentine stupes will prove beneficial.

When the tenesmus is very great, with a tendency to prolapse of rectum, I have found it necessary to apply a weak solution of cocaine every three to four hours and to keep the bowel constantly pushed back by means of ice pressed to the anus.

In one case that I remember this was practiced more than a week with success.

I will add that in very young children it is sometimes expedient to administer the opiate paregoric by the mouth, but if you will only make the dose small enough, morphia and atropia may be advantageously given hypodermically to a child, it does not matter how young.

In conclusion, I wish to note a fact that I have observed, and, so far as I know, no writer has recorded, namely, there is a decided tendency to peritonitis in very young girls when menstruation occurs during the first few days of dysentery. I have had three well-marked cases of peritonitis from this cause in girls under 15 years of age, and feel quite sure I should have had others had I not profited by the above experience.

Selected Papers.

SOME FORMS OF ERUPTION SIMULATING SCARLATINA.

BY A. D. BLACKADER, M.D., Montreal.

In presenting the notes of the following cases to this Society I feel that an apology is in order. There is nothing new in what I have to say, and probably were I to search the columns of our medical journals for a few years back, I might find cases similar to the ones I now present to you.

My chief object in writing, when I proposed the paper, was to emphasize the fact, recognized, I admit, in some text-books, but very much overlooked by the general practitioner, that the mere presence of a scarlatinal rash, going on to desquamation and associated with pyrexia, does not of itself warrant the diagnosis of scarlet fever, not even although it should present a certain amount of superficial consillitis. Cases will occasionally arise in which, with our present knowledge, an absolute diagnosis is impossible until some days have elapsed. In such the public should be educated up to the necessity for caution and to the recognition of the difficulties that may occasionally lie in the way of prompt decision, and at the same time the physician should be extremely cautious for the first few days lest he too rashly condemn a child to a six or eight weeks' quarantine and a family to all the suspense and worry connected with such a proceeding, when caution, time and frequent careful observations on the course and exact symptoms of the attack, might make it evident that prolonged isolation was unnecessary. Moreover, every hospital, especially every infectious hospital, should have numerous isolation rooms where doubtful cases can be detained for a time until the diagnosis becomes absolute. On receiving the programme for the meeting, however, I found I was put down for a paper on *form of eruption simulating scarlatina*. I have, therefore, slightly altered the arrangement of my notes to make them correspond more exactly to the subject allotted me.

Among the simplest scarlatiniform rashes, and among the least liable to give rise to serious difficulty in diagnosis are the scarlatiniform erythemata which occasionally result from the administration of certain drugs.

That an erythema closely resembling scarlatina may be produced by belladonna is acknowledged by all, but it is perhaps not so often seen as we might expect, considering the heroic doses in which the drug is occasionally given to children. A case in which this erythema was particularly well-marked occurred recently in Montreal, for the notes of which I am indebted to my friend, Dr. A. S. Wade:

*Read before the American Pediatric Society, Virginia Hot Springs, May 28, 1895.

On the 7th of this month he was called to see a child 5 years old who had eaten surreptitiously fifteen sugar-coated granules of atropine, each containing one-one hundred and twentieth of a grain, in all one-eighth of a grain of atropine. On arrival he found the child in convulsions with skin dry and hot, and completely covered, literally from crown to sole, with a diffuse bright scarlatiniform rash, punctate in character, disappearing momentarily on pressure and leaving a distinct white line after the finger-nail drawn rapidly over it. The pulse was 160, weak and compressible. Before the convulsion the child had been delirious and the pupils widely dilated. Under careful and prompt treatment the symptoms abated, and on the doctor's visit on the following morning, the rash had faded and the child was running round.

Salicylic acid and its compounds are more frequently credited with producing an urticarial rash than a scarlatiniform erythema. The following are the brief notes of a case in which a rash distinctly scarlatiniform in character was apparently due to this drug:

John H., aged 17, an anæmic lad, entered Montreal General Hospital, April 29th, suffering from ill-defined rheumatic pains and very slight pyrexia. Under a few days rest in bed these passed away, and he was placed upon a preparation of iron. Following a sudden change in temperature a recurrence of the rheumatism took place, for which sodium salicylate, in fifteen-grain doses, was ordered. On the third day he complained of a feeling of fulness in the head, while on the neck and shoulders, upper part of chest, and the flexor surfaces of the arms appeared a diffuse erythematous rash. By the following day the character of the rash was more pronounced. It covered all the trunk, extending as low as the inner surface of the thighs with a distinctly scarlatiniform erythema. On the forearms and lower part of the thighs it presented the appearance of scattered, slightly elevated, round or oval spots, most of them of rosy color, but some of them with paler center, more urticarial in appearance, and in places tending to coalesce. There was no pyrexia, the tongue was clean and the throat normal. The salicylate was now stopped and *post* or *propter* the rash faded, so that the following day it had almost disappeared. No desquamation was noticed.

The rashes of phenacetin and phenazone are generally too patchy in character to give rise to any suspicion of scarlatina. The following case, however, which I attribute entirely to the action of the drug, gave rise for some hours to fear lest it might prove to be scarlatina.

Laura T., aged 4 years, of neurotic temperament, and with a skin sensitive to slight irritation, was taken ill in the afternoon of April 11, 1893, with vomiting, severe headache and pain referred to the right side. The child had been out for a long drive the previous afternoon with a sharp northeast wind blowing. I saw it about 3 p. m. and found a temperature of 101.5° F., pulse 120, respiration 26 and tongue slightly furred. The bowels previously had

been quite regular, so a simple saline was prescribed. In the evening I found the child very restless, complaining of headache and pain in the side, but of both rather indefinitely. Careful examination revealed little beyond feeble breath sounds; the temperature was 102.8° F.; the pulse-respiration ratio was not much disturbed. I prescribed a four-grain phenacetin powder. Early next morning I received an urgent message that the child was covered with a rash and that the mother feared scarlet fever. I found the child easier, but the neck and upper part of trunk was covered with a distinct red rash resembling scarlatina. At the lower edge of the rash and on the lower limbs small round oval, erythematous spots appeared with definite and slightly raised margins. The tonsils were reddened, but not the soft palate. The temperature was 102° F., the pulse 108. By the afternoon the rash had begun to fade. A painful cough developed, and by the following morning indications of a distinct effusion were present on the right side. It ran a very rapid course and I had to perform paracentesis on the sixth day owing to rather alarming pressure symptoms. I may add that in this child quinine, on two separate occasions, given in small doses, produced an urticarial rash.

Copaiba may also in my experience give rise to a rash which may in some degree resemble scarlatina.

Many other drugs are reported as having produced a scarlatiniform erythema. Among the more important are oil of turpentine, iodoform, arsenic, chloral hydrate, mercury, santonin, ipecacuanha, sulphur, strychnine and iodine. I have not seen myself a case resulting from any of these.

In an allied group to the rashes produced by drugs we may place those transitory scarlatiniform erythema due probably to the accidental absorption of some toxin from the alimentary canal or elsewhere.

Amongst these I should place the erythema which has been occasionally observed to follow the use of enemata. Several cases are recorded in which, within a few hours after the administration of a simple soap and water injection, a distinct scarlatiniform rash has made its appearance, at first about the neck and shoulders, and has then spread from above downwards over a large surface of the body; this rash persists for a variable period, is never accompanied by pyrexia, but is generally followed by desquamation. Transitory erythematous blushes or distinct rashes, are also occasionally noted in connection with cases of tonsillitis and diphtheria and in septicæmic conditions in children.

The following is a very marked case, possibly due to a somewhat similar cause, which occurred in the family of my *confère*, Dr. Gordon Campbell, of Montreal:

W. C., female, aged 21, was suffering from pleurisy on the left side with effusion. On April 9th, the eleventh day of the illness, the amount of the effusion was at its maximum, reaching as high as the third rib anteriorly. There were no symptoms of interference with the circulation or respiration.

That evening the patient complained that an eruption was coming out on her face and neck. On examination by gas-light, nothing was evident beyond a little roughening of the skin and flushing of the face.

On the following morning a rash extremely like that of scarlet fever, if not identical with it, was present all over the body, but more intense on the back and upper parts of the trunk. It was of a bright scarlet red color, and, on close examination, showed a punctate appearance on a uniformly red ground. The skin was not roughened, and, on drawing the finger-nail across it, a white streak was left for an instant. The throat was not injected, nor did it feel at all sore or dry to the patient. The temperature, which had been 100.6° F. for the previous two days, remained the same. There were absolutely no symptoms referable to the rash except slight itching, which came on in the evening and was more pronounced the following day. The eruption persisted for five or six days, was quite as intense the second day as the first, and then gradually faded, remaining longest on the back. Desquamation consisting of fine branny scales was noticed as occurring on the face and legs and persisted for seven weeks. This patient had scarlet fever in infancy, and my friend was so positive of his ability to exclude definitely any form of infectious fever, that he allowed his own child, ten months old, to frequently enter and remain in the room with the patient. No treatment was employed. The patient was taking at the time triturations of strychnia, gr. $\frac{1}{16}$, three times a day, and was allowed to continue with them. There was nothing in the food taken which could possibly appear as the cause of the rash. Both diet and treatment had remained unchanged for the week previous to its appearance. Notwithstanding the rash, the patient made a rapid, uninterrupted recovery from the pleurisy.

Much more liable to give rise to error are occasional cases of erythema roseola, which, although generally resembling rubeola, does occasionally in children assume over the greater part of the body a distinctly scarlatiniform appearance. These cases, associated as they may be with a slight elevation of temperature and quickened pulse, may give rise to some anxiety. The rash, however, is very transitory, and I do not remember having ever seen a case where it was uniformly scarlatinal over the whole body; generally, on the limbs or back, the rash assumes a distinctly morbilliform character. The throat in these cases is quite free from any inflammatory appearance.

Acute desquamative dermatitis is another condition under which we may have a well-marked scarlatiniform rash, going on to desquamation, and associated with more or less pyrexia. The following is an interesting example, for the notes of which I am indebted to Dr. Shepherd, of Montreal:

Thomas Smith, aged 16, office boy, born in England, presented himself on the 9th of July, 1893, at the out-patient department for diseases of the skin of the Montreal General Hospital. The following is an abstract of the notes taken at the time:

The lad is anæmic and has never been strong. Three months ago a scarlatiniform eruption appeared all over the body. It was associated with fever and vomiting. The fever lasted about nine days, when desquamation set in, continued for ten days and then the boy got perfectly well. Two weeks previous to the present appearance he had a similar attack, followed by a similar peeling of the skin to that which is now going on. This desquamation resembles very closely that of scarlet fever. There is no redness or inflammatory condition, but the skin is covered with fine white branny scales and is very itchy. On the palms of the hands and soles of the feet there are large blisters, in size varying from that of a five-cent piece to that of a silver dollar. These fill with watery serum, and when this is let out, the piece of skin covering it becomes detached. No scab forms, as in ordinary pemphigus. Numerous marks of previous blisters are visible. Over some of these spots the skin is in a cracked eczematous condition. There is also well-marked eczema of the sides of the fingers. Under a course of arsenic the condition completely passed away and desquamation ceased. The following year, on the 24th of March, the lad returned. Eight days previously he had had a distinct chill; on the two succeeding days he was "out of sorts;" and on the third day he felt sick at the stomach, and afterwards a red, uniform rash appeared and gradually spread until it covered the whole body. He felt hot and feverish. The rash remained out for three days and began to fade the day previous to his presenting himself at the hospital. On examination, the only evidences of the rash at the time were found about the thighs, which were covered with a uniform scarlatinal erythema. Both ears were covered with fine desquamating scales. The tongue was clean, but the papillæ were enlarged. The throat was not reddened and was said not to be sore. His principal complaint was of the itchiness of the skin. The temperature in the axilla was 100° F. A saline mixture was prescribed. The patient returned again in June of the same year with a very similar condition of the skin, and was placed on a course of arsenic, under which recovery took place.

The most important of these scarlatiniform rashes, because most frequently met with, and most liable to be mistaken, are those cases of rubella or rotheln which present a scarlatinal rash. In general the exanthem of rubella more closely resembles measles than scarlet fever; but every now and then, more frequently in some epidemics than in others, cases arise when it is impossible to give an immediate absolute diagnosis. The rash on the first appearance may show no characteristic difference; pyrexia may be present and a varying amount of tonsillar congestion. In such cases the all-important factor for correct diagnosis is time, and the following consideration will influence us:

Even in mild cases of scarlatina we find a more decided disturbance of the nervous system than in cases with a similar amount of pyrexia in rubella. Drowsiness or marked irritability of the nervous centers generally precedes

the appearance of the exanthem in the former disease, almost never in the latter. In rubella the rash, especially after the second day, and on the lower extremities shows a distinctly patchy condition, with well-defined and slightly raised margins, or sometimes assumes an almost morbilliform appearance, which is never the case in scarlatina. In scarlatina the pharyngeal congestion is always more or less present, and always bears a fairly definite relation to the amount of rash. In rubella the exanthem may be well-marked, while the congestion of throat may be slight and limited to the tonsils. The post cervical glands are almost always enlarged early in an attack of rubella; if enlarged at all in scarlatina, it is only towards the close of the first week. In scarlet fever, even in mild cases, towards the end of the first week, we have a distinct loss of epithelium on the dorsum of the tongue, giving rise to the well-known term "strawberry tongue." This, of course, is much more manifest in some cases than in others, but I believe always takes place. I have never noticed it in rubella. I cannot, for myself, place the same value on a quick pulse that some writers do. Like other symptoms, it may occasionally deceive us. I have seen cases of undoubted scarlatina where the pulse, though quickened, was only moderately so. The incubation period can only be of value to us where several cases occur successively in the same family.

In all such cases we should insist on absolute isolation, but claim time before we express our diagnosis, and, as teachers, while emphasizing to students the danger incurred in overlooking mild cases of scarlatina, we should also point out not only the unnecessary expense and wrong to parents involved in stamping every case of scarlatinal rash, as the much-dreaded scarlet fever, but also the actual danger to the child affected should it be sent to an infectious hospital. The following is a case in point, the particulars of which were related to me by a friend:

G. H., a lad of about 7 years, when seen was covered with a well-marked scarlatiniform exanthem covering the greater part of the body, which had appeared the day previously. The child did not look ill and complained of nothing. His temperature was 100.5° , the pulse 96 and the tongue somewhat furred. There was no history of any prodromata. The case was declared to be one of scarlet fever and the child sent to an infectious hospital. On the following day the temperature was almost normal, but on the next it rose suddenly to 106° F., and the child died in a comatose state the following morning. Two other children in the same family took ill ten days after the first had been removed to the hospital. There was the same scarlatinal rash, slight pyrexia, rapidly subsiding to normal, desquamation on the second week and rapid recovery.

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Editorial.

Diphtheria Antitoxin.

There is still lingering in the minds of many a doubt as to the real usefulness of antitoxic serum in the treatment and prevention of diphtheria. It is well, probably, that this is so, unless that doubt is founded upon a prejudice which keeps some suffering child from the chance of relief which the remedy might hold out. It is well that the subject be carefully studied *pro* and *contra*, that defects and dangers may be noted and overcome.

A century ago the world was discussing Jenner's great discovery that 'would, according to the discoverer's assertion, make small-pox disappear from off the face of the earth, if man

would but use it. Some believed but more doubted, and time has shown that Jenner was right. Now another discovery, which will prove to the world no less a blessing than vaccination, if time proves the claims of its discoverers to be true, is attracting the attention of the world. What will be the result? Time only will reveal the true place serum therapy will hold in the treatment of disease, but in our opinion, and we believe the vast majority of the profession are like-minded, that place will be a very important one. The treatment of diphtheria by antitoxin has established itself on so sure a foundation that he who denies its efficacy is, at least, reckless. That the tendency of the times is to rush too enthusias-

tically into new methods that some theorist has advanced, and that this haste is rather that the pioneer may glorify himself than relieve human ills, we will admit, but how men, in the face of such overwhelming favorable testimony as to the clinical results of this treatment, from observers of recognized scientific ability and honesty, can totally oppose it, we cannot understand. Certainly they are placing themselves in a position from which they must recede.

The most notable opponent of the treatment is Hanseman, who denies even that the Loeffler bacillus is the cause of diphtheria, because it is sometimes found in healthy throats and some cases occur in which the bacillus is not found. The same argument would apply to other germs as the cause of infectious disease, and there are some opinionists who do even assert that the comma bacillus is not the cause of cholera nor the bacillus tuberculosis of consumption. Hanseman's objections have been satisfactorily answered by C. Fraenkel. In this country the most out-and-out opponent of the treatment seems to be Dr. Joseph E. Winters, who expressed his views before the New York Academy of Medicine at its meeting April 4th last. He claimed to base his opinion on "three months of daily clinical observation of the effects of the antitoxin in one hundred and fifty-four cases of diphtheria treated in the Willard Parker Hospital." Note some of his statements: "At the Willard Parker Hospital, in the month of December last, we had eight consecutive recoveries after intu-

bation in cases of laryngeal diphtheria without antitoxin." "At the Willard Parker Hospital, in the month of December, 1894, the recoveries from laryngeal diphtheria without antitoxin were about seventy-five per cent. This has never been equalled with the antitoxin treatment with or without intubation." "Any case which, at the time of admission, has given evidence that the disease was progressive in its course, that course has not been stayed or changed in any particular by the antitoxin treatment." As to the untoward effects, he says: "Babies have been brought to that hospital with slight clinical evidence of diphtheria—babies, with the exception of a slight exudate in the throat, and perhaps a slight croupy cough, that were apparently healthy and with rosy color. They remained in good condition for perhaps ten days or two weeks after receiving antitoxin, when one day as you enter the ward you hear a moan, and, approaching the crib, you find the baby lying on its side with its head retracted, its arms and legs flexed, and moaning piteously. These are cases of antitoxin infection. The temperature charts show a record of 105° to 106°. The symptoms may gradually subside, leaving the baby weak and extremely anæmic, or for days the temperature varies between 99° and 101°. . . . *Horse serum dissolves human blood corpuscles and thereby produces new elements of decomposition. The condition of the babies just spoken of was one of antitoxic septicæmia, and brought about by the influence of the antitoxin on the blood.*" "I have failed to see the slightest evidence

that it neutralized the toxæmia in a single case. I have never found that it exerted the slightest influence for good in a single clinical manifestation of the disease."

Now note some of the statements of Dr. W. H. Park, in the *Boston Medical and Surgical Journal* of September 12th, 1895. His statements are based on "the effect observed in cases of diphtheria treated with antitoxin at the Willard Parker Hospital during the first five months of 1895. He says, in regard to the cases in December, 1894, "they show a mortality of forty-two per cent. for all cases in December, and not one of all the thirteen cases intubated recovered." The cases for the first five months of 1895 "include all patients received who had both clinical and bacteriological evidences of diphtheria. About five per cent. had, upon admission, only swelling and hyperæmia. A certain number were received in a moribund condition; these are also included. . . . There were 255 cases admitted; of these 183 recovered, 71 died, making a mortality of 27.8 per cent." During the last four months there have been but eleven cases whose temperature reached 105° and only three 106°. Eight of these fourteen cases had on admission severe laryngeal diphtheria, and were almost immediately intubated, and all but two of the fourteen had pneumonia during their high temperature. One of these two was septic from the beginning, dying on the sixteenth day, and the other was an eleven months' child with tubercular ulceration on arms and legs."

We thus see that were the facts just as Dr. Winters' paper leads one to suppose, there would be good reason for avoiding antitoxin, but we see that his statement of facts was not supported by the records of the hospital, according to Dr. Park, and therefore his deductions can have but little weight.

One of the most complete and convincing papers upon the present status of the antitoxin treatment is by Prof. William Welch, of Johns Hopkins Hospital and published in the *Bulletin* of the Hospital. He says: "Antitoxic serum is a new and strange remedy, but the effects which follow its injection in individual cases are not new and strange. . . . But why should anything new and strange happen after the administration of antitoxin? Cure by antitoxin is cure by nature's own remedial agent. . . . Recovery following treatment by antitoxin is such a natural kind of recovery that, in any given case, the physician may readily have the feeling that the same thing might have happened without the use of the remedy." Dr. Welch has collected 82 reports containing 7,166 cases. In these reports the mortality under the antitoxin treatment is compared with the previous mortality from the same source. Objection is made by some critics that all cases where the Loeffler bacillus is found are included in statistics generally, and that the large number of very mild cases thus included reduces the death-rate, while the same result follows leaving out many severe cases in which the bacillus is not found. In the records of the New York City Board of Health

these latter are classed as pseudo-diphtheria, and while a few of them are severe and even prove fatal, Dr. Biggs has shown that the mortality is far below that in true diphtheria, taking all cases where the bacillus is present. Therefore, excluding all those cases where the bacillus is not found, tends to increase the mortality rather than reduce it. Dr. Welch demonstrates this point by citing the report of Roux, Martin and Chaillou, from which 128 cases of pseudo-diphtheria were thrown out. The mortality in these cases was only 8.5 per cent., while in the 300 remaining cases where the bacillus was found the mortality was 26 per cent.

The death-rate of the 7,166 cases treated with antitoxin was 17.3 per cent. Of the 7,166 cases, there were 5,777 from hospital reports, and these show a fatality of 18.7 per cent. In 46 of the 82 reports the previous or simultaneous fatality without antitoxin is stated. In these 42 reports there were 5,406 cases, with 1,008 deaths, a fatality of 18.6 per cent.

If the number of deaths in these cases were estimated on the basis of the previous fatality, the number would have been 2,279, a fatality of 42.1 per cent. This shows a reduction under the antitoxin treatment of 55.8 per cent. In conclusion, Dr. Welch says: "The principal conclusion which I would draw from this paper is, that our study of the results of the treatment of over 7,000 cases of diphtheria by antitoxin demonstrates, beyond all reasonable doubt, that anti-diphtheritic serum is a specific curative agent for diphtheria, surpassing in its efficacy all other known methods of treatment for this disease. It is the duty of the physician to use it. . . . The discovery of the healing serum is entirely the result of laboratory work. It is an outcome of the studies of immunity. In no sense was the discovery an accidental one. Every step leading to it can be traced, and every step was taken with a definite purpose and to solve a definite problem."

Reviews and Book Notices.

Lectures on Appendicitis and Notes on Other Subjects. By Robert T. Morris, A.M., M.D., Fellow of the New York Academy of Medicine, American Association of Obstetricians and Gynecologists, etc., etc. With illustrations by Henry McDonald, M.D. Cloth, octavo, 163 pages. G. P. Putnam's Sons, New York, 1895.

Dr. Morris' writings on the subject of appendicitis are more or less famil-

iar to all who have taken any interest in the development of the subject. His papers contributed to medical journals or associations have been widely reprinted and quoted. We are pleased to see his discussion of the whole subject put into shape for easy reading and reference. His ideas are so well known that it is hardly necessary to discuss them.

The first four chapters, which are devoted to the special subject of appendicitis, are liberally illustrated by photographic reproductions of some of his typical specimens and by anatomical drawings. In Chapter IV., which discusses the Surgical Treatment of Appendicitis, the inch-and-a-half incision is explained and its advantages clearly set forth. He appreciates the fact that in operative procedures each surgeon must be a law unto himself, but it was his object to blaze out one "clear trail through the subject."

Chapter V. is devoted to notes on various subjects of greater or less length. Especially interesting among these are, "An Addition to McGuire's Operation for a Supra-pubic Urethra;" "The Drainage Wick," an excellent device by Dr. Morris, having the advantages of capillary action without the fibres coming into contact with the tissues; "The Reason Why Patients Recover from Tuberculosis of the Peritoneum;" "Skin Grafting from Blisters;" etc.

The book is gotten up in most beautiful style on enameled paper, and the illustrations are perfect.

The Pocket Materia Medica and Therapeutics.

A Resume of the Action and Doses of all Official and Non-Official Drugs now in common use. By C. J. Henri Leonard, A.M., M.D., Professor of the Medical and Surgical Diseases of Women and Clinical Gynecology in the Detroit College of Medicine. Second edition, revised and enlarged; cloth, large 16-mo., 367 pages; price, post-paid, \$1.00. Detroit, 1895. The Illustrated Medical Journal Company Publishers.

The second edition of this popular therapeutic work has had 67 pages

added to it, besides typographical errors corrected, etc. A new and complete cross-index has been prepared, which renders the quick finding of a non-familiar drug possible. This is an important feature lacking in many ready-reference books. It is a "down-to-date book," and this with unique arrangement of its description of drugs and compounds secured for the first edition an order by cablegram for 1,000 copies from Bailliere, Tindall & Co., one of the largest medical publishing houses in London—a compliment rarely paid any American book. It has also been a popular book with physicians, pharmacists and students on this side of the water, judging from the early exhaustion of the first edition.

The descriptive arrangement of the drugs is as follows: Alphabetically the drug, with its pronunciation (official or non-official standing indicated), genitive case-ending, common name, dose and metric dose. Then the English, French and German synonyms. If a plant, the part used, habitat, natural order, botanic description, with alkaloids, if any; if a mineral, its chemical symbol, atomic weight, looks, taste, how found, its peculiarities. Then the action and uses of the drug or compound, its antagonists, its incompatibles, its synergists and then antidotes. Then follow its official and non-official preparations with their medium and maximum doses. Altogether, it is a handy volume for physician, druggist or student, and will be frequently appealed to if in one's possession. We believe it to be the most complete and exact of any of the books of its class now issued, and its moderate price is to be commended.

Abstracts.

THE INCREASED MORTALITY FROM PNEUMONIA.—Dr. Thomas M. Woodson discusses (*Med. and Surg. Reporter*) the increased mortality from pneumonia, which has become so marked of late years, and while he gives due credit to the lowered vitality brought about by antecedent attacks of la grippe, and the present habits of living as compared with those of the past, as factors in the cause of this increased mortality, he thinks that modern treatment may have more to do with it. Is all done that can be done by the use of remedies to reduce the death-rate? Authors and teachers of the period give no encouragement to the idea of aborting, abbreviating, or even modifying the course of an attack of pneumonia. They teach that it must run its course, while the physician looks on without the power to interfere. Is there any drug which can so modify congestive processes as to prevent intense congestion and subsequent exudate? He thinks we have two such drugs in quinine and veratrum viride. Cases of death from veratrum viride are medical curiosities, so rare are they. Brought to bear at the proper time, the stage of excitement and congestion, and carefully watched, there certainly is far less danger of depression than in allowing the inflammation to proceed to consolidation, when the obstructed pulmonary circulation is sure to result in an over-taxed and engorged heart, with its frequent sad ending—heart failure. The brilliant work of

the modern bacteriologist and chemist, with their microscope and test-tube, has diverted the young physician from a knowledge of established remedies of acknowledged merit.

ACCURACY IN COMPOUNDING PRESCRIPTIONS.—Mr. E. A. Schubert, in the *Western Druggist*, gives the following result of a practical test of the efficiency and professional integrity of the druggists in a certain section of Ohio: "I espoused the thought," remarks Mr. Schubert, "that it would be a capital idea to write a prescription of easy composition and analysis, to see how many druggists would fill it correctly. I set to work immediately mailing to each of fifty physicians one of the prescriptions, at the same time asking him to write it as a prescription of his own, send some friend with it to his druggist to have it filled, a copy taken and returned to me with the compounded prescription. Out of the fifty requests sent out, I received thirty-seven answers. The prescription called for a three-ounce preparation, but, placing them side by side, I found twenty-one to be three-ounce preparations, seven were in size four ounces, while the rest ranged in size from five to eight ounces. It was to be an emulsion; nineteen were of that composition, the remainder were far from being true to name. In color, when correctly filled, it would be nearly white; of these twenty-two were true in color, while the remainder ranged from a steel gray to nearly

all the known hues. The principal active ingredient was the acetate of morphine; thirteen only contained this, the remainder principally contained the sulphate. *Out of the entire number returned, eleven were found to be filled correctly.* The remainder were base substitutions, either through ignorance or intention. Of the eleven that were correct, nine came from the hands of Ph. G's., the remaining two were compounded by old and reliable druggists in the city. Of the twenty-six not properly filled we found five Ph. G's., the remainder were country druggists having very little experience in this line and located, with but few exceptions, in towns of 6,000 inhabitants and less." Can it be possible that this sort of recklessness and ignorance characterizes the profession in other intelligent communities?

ABSCCESS.—Never try fluctuation across a limb, always along it.

Never forget that:

1. Abscesses near a large joint often communicate with the joint.
2. Abscesses near a large artery sometimes communicate with the artery.
3. Abdominal wall abscesses sometimes communicate with the gut or the solid viscera.

Never forget that early openings are imperative in abscesses situated:

1. In the neighborhood of joints.
2. In the abdominal wall.
3. In the neck, under the deep fascia.
4. In the palm of the hand.
5. Beneath periosteum.

6. About the rectum, prostate and urethra.

To wait for abscesses to "point" or to "burst" in these situations is culpable as well as cowardly.

Remember the frequency with which hematmata and traumatic aneurism have been mistaken for abscesses, and incised with untoward results.

Do not open an abscess anywhere near a large artery without first using a stethoscope, and then only by Hilton's method, i. e., scalpel, director and dressing forceps.

Never, under any circumstances, use for exploratory puncture "that surgical abomination, a grooved needle," for it will allow contamination of all the tissues through which it brings the fluids. (Thornton.)

Never plunge in opening abscesses; never squeeze the sac after doing so.

Do not forget that your incision should radiate:

1. In abscesses pointing near the nipple.
2. In abscesses near the anus.
3. In scarifying the chemosis of the cornea.

And that your incision should be longitudinal:

1. In the hand.
2. In the urethra.
3. On the vertex.

Do not forget that incisions for abscesses in neck or face should run parallel with the wrinkles and folds.

Do not be afraid of hurting the lacteal tubes in mammary abscess. More harm is done to the gland by the enlargement of the walls of the abscess than by a free incision.

Never make a palmar incision ex-

cept in the middle of the lower third and in the axial line of the fingers or at the sides of the palm.

Do not forget, in opening a deep abscess in the lumbar region without the projection of the abscess, to cut down opposite a transverse process, not between them, for fear of wounding a lumbar artery.—*Atlanta Medical and Surg. Jour.*

FIVE YEARS' EXPERIENCE WITH THE COLD BATH TREATMENT IN FEVER.—(Osler, *Med. News.*)—During the first year of hospital service typhoid fever was treated symptomatically. There were admitted during this year 33 cases with 8 deaths, a fatality of 24.2 per cent. During the past five years Brand's system has been carried out with certain minor modifications. There were admitted during these years 356 cases with 26 deaths, a fatality of 7.3 per cent. However, there were only 299 of these who received the baths, and of this number 20 died, a fatality of 6.6 per cent. These figures include all cases of typhoid fever admitted whatever the condition on admission. Various circumstances interfered with the carrying out of the treatment. Some cases were admitted in the second or third week with a falling temperature and the fever constantly below 102.5. Some patients are admitted late in the disease and are too ill to bathe. There were five of these, of whom not one died. The baths were postponed in several instances on account of hemorrhage. In no instance did the pulmonary symptoms seem to contraindicate the baths. There were some cases that were not bathed at

first because the diagnosis was doubtful. Two of the fatal cases that died were not recognized clinically as typhoid fever. Lastly, the baths have been changed to the cold sponging on account of hemorrhage, profound weakness, tenderness and swelling of the abdomen, signs of perforation, and in a few cases because of the active protestations of the patient. In carrying out the treatment each patient receives a tub-bath of twenty minutes at 70° F. every third hour, when the rectal temperature is at or above 102.5° F. Frictions are applied in the bath, and a warm drink or stimulant is given afterward. In a large proportion of the cases no other treatment is used. If the pulse is weak, whiskey is given and strychnine. The diet is wholly milk or in part broths and egg albumin. The cold-bath treatment rigidly enforced, by comparison of extensive statistics, seems to save from 6 to 8 in each hundred of typhoid fever patients admitted to the care of the hospital physician. The author concludes: "While I enforce the method for its results, I am not enamored of the practice. I have been criticised rather sharply for saying harsh words about the Brand system. To-day, when I hear a young girl say that she enjoys the baths, I accept the criticism and feel it just; but tomorrow, when I hear a poor fellow (who has been dumped, like Falstaff, 'hissing hot,' into a cold tub), chattering out maledictions on nurses and doctors, I am inclined to resent it and to pray for a method which may be, while equally life-saving, to put it mildly, less disagreeable."

ELECTROTHERAPY AS A MEANS OF DIAGNOSIS IN GYNÆCOLOGY. — Dr. Apostoli, after a long and thorough trial of his method, has come to the following general conclusions:

1. The faradic current of tension (generated by the coil of long and fine wire) applied to the uterine cavity, according to the rules established by Dr. Apostoli in 1883, relieves, for a longer or shorter time, all ovarian pain of nervous or hysterical origin; but remains powerless or nearly so in cases of ovarian pain caused by inflammatory lesion of the peri-uterine tissue or of the appendages.

2. The same faradic current is therefore useful in diagnosis, inasmuch as it helps us to distinguish the nature of so-called ovarian pain, and to determine rapidly the differential diagnosis between hysterical and inflammatory ovarian pain. Where the two kinds of pain exist in the same patient we are helped to understand their nature by the fact that the one is relieved and the other is not.

3. If, then, the curative effect of the faradic current clears up or rectifies a doubtful diagnosis, it protects us at the same time, from undertaking a useless operation.

On the other hand, if the same faradic current proves ineffective, the lesion being inflammatory, we are led to resort to a supplementary galvanic treatment or to a surgical operation sooner or later.

4. The constant galvanic current, applied to the uterine cavity in doses gradually increasing from 50 to 120 milliamperes, according to the rules published by Dr. Apostoli in 1884,

and bearing in mind the individual susceptibility and tolerance, will be almost always supported without much pain during the séance, and without febrile reaction afterward, if the parts adjacent to the uterus are free from inflammation.

Simple cystic, peri-uterine tumors, which are neither inflamed nor suppurating (such as ovarian cysts and hydro-salpinx), may also show perfect tolerance of the galvanic current.

The galvanic current is also sometimes perfectly supported by cases in which the uterus is surrounded by old inflammatory products or exudations no longer pathogenic.

5. There are three classes of cases which should be considered as exceptions to the preceding rule, for they bear the galvanic current more or less badly, though they do not necessarily produce much febrile reaction after the séance.

They are:

a. Certain forms of hysteria.

b. Fibro-cystic tumors of the uterus.

c. Enteritis with false membrane.

It is generally easy to diagnose these cases of intolerance.

6. All acute peri-uterine inflammation (of the pelvic cellular tissues, of the peritoneum, and especially of the appendages) will cause the galvanic current to be badly borne when it passes 40 or 50 milliamperes, and will cause intolerable pain and febrile reaction when carried beyond this intensity.

7. The intolerance for the galvanic current is generally proportionate to the extent and gravity of the lesions referred to and increases with the in-

tensity of the current employed—especially when it passes 40 or 50 milliamperes.

8. All inflammation of the appendages which is curable (symptomatically at least) without radical operation, will bear the galvanic current better and better, and there will be a corresponding improvement of the prominent symptoms, such as pain and hemorrhages.

The intolerance noted at the beginning progressively disappears.

9. All grave inflammatory lesions of the appendages, and notably all suppurative processes which are incurable (even symptomatically) by conservative means, show the same intolerance from the beginning to the end of the treatment which was noticed at first, and which is apt to increase instead of diminish if the treatment is continued.

10. Thus, the simple study of the tolerance or intolerance of the intra-uterine galvanic treatment, and especially of the post-operative pain and fever occurring on the evening of, or the day following the treatment, enables us to make the diagnosis. It also, in 4 or 5 séances, given twice weekly, informs us of the condition of the appendages, of their possible inflammation and its degree, and in this way it lessens the number of laparotomies and exploratory incisions.

11. The same study of the so-called galvanic reactions also informs us rapidly (in 5 to 10 séances) of the curability of these inflammatory lesions which the electric current has demonstrated, and in consequence of this it tells us in one case to abstain

from operation, while in another it shows an operation to be urgent.

12. En résumé, Gynæcological Electro-Therapeutics, carefully, methodically and patiently applied, instead of being opposed to the marvellous progress of surgery, comes to its aid.

Independently, in fact, of the great therapeutic service which it renders every day, electricity serves as a *touch-stone*; it assists us in diagnosis, and thus directly serves the interests of surgery, in one case showing an operation to be useless and dangerous, in another that its necessity is urgent.

Thus many of the laparotomies, so-called exploratory incisions and mutilations practiced without due deliberation for the relief of rebellious ovarian pain or for lesions of the appendages of uncertain nature, should be, from this time forth, delayed or formally proscribed until all the resources of *faradic sedation*, on the one hand, and of the *intra-uterine galvanic effect* on the other, have been tried. Experience has abundantly proved these currents to be innocuous, if given with necessary aseptic precautions.

VAGINAL DRAINAGE IN ABDOMINAL SECTION.—(G. H. Mallett, *American Jour. of Obstet.*) The English and American surgeons have been sceptical as to the possibility of keeping out all germs, and have turned their attention to the removal of the pabulum of the germs and trusted to the vitality of the living tissues to resist the microbes when the cavity, free from dead and foreign matter, is

kept dry and the vitality of the patient is maintained. They have favored these ends by a short incision and by removing blood, pus, contents of cysts, etc., by irrigation, instead of using sponges or gauze—disregarding the oozing from adhesions so long as the latter would be removed by the drainage tube. The time of operation is shortened.

The method of drainage that we advocate is by means of gauze through the vagina, for the following reasons: As the cul-de-sac is the most dependent part of the abdominal cavity, it has the advantage of natural drainage by gravitation. With the abdomen closed and the vagina cleansed, as it should be before every abdominal operation, there is no danger of sepsis. The possibility of fistulæ and herniæ is reduced to a minimum. The actual statistics of the cases drained by this method are better than those where the abdominal wound is left open. There is less pain and reaction after the operation. Dr. Coe, in his book recently published, calls attention to the value of this method when one is compelled to leave the patient, after operation, in the hands of a general practitioner. The attendant has merely to withdraw the gauze with no danger of infection.

The technique of this procedure is simplicity itself. The operator or an assistant passes two fingers into the thoroughly cleansed vagina. The sharp point of a pair of long scissors is then made to puncture the cul-de-sac between the guiding fingers, and by separating the handles of the scissors the opening may be enlarged

as much as is desired. A pair of forceps is then passed through the vagina into the cul-de-sac, and the end of a narrow strip of gauze is caught and brought out through the vagina; the pelvis is then packed with the gauze to the extent that is deemed advisable. The intestines and omentum are allowed to regain their natural relations and the incision is closed. The gauze in the vagina can be easily withdrawn a few inches on the second day. The vagina can be irrigated with an aseptic fluid as often as may be necessary, or a package of iodoform gauze may be inserted. The gauze may be gradually removed, depending upon the amount of drainage required.

In conclusion, the points that I wish to emphasize are: That the tendency of all operators seems to be toward the limitation of drainage to bad pus cases. The wonderful results of vaginal hysterectomy for pelvic suppuration have shown the value of drainage by the vaginal route, and have gone far to convince men that the patient has a better chance for recovery if the pelvic cavity is completely shut off from the air and all fluid is allowed to escape. By this method the organs are not disturbed nor unduly pressed upon. The intestines are not interfered with and the parts are left in the normal condition. When necessary to leave a case to the general practitioner, he has simply to pull out a little gauze from the vagina every day, and he cannot introduce sepsis.

PYOPNEUMOTHORAX. — (W. C. L. Carr, *Archives of Pediatrics*.) Child,

aged 10 months, was admitted November 17th into St. Mary's Free Hospital for Children, with a history of fever and hacking cough for two weeks. Examination showed respiration oppressive and 80 per minute, right side fuller than left apparently, but no bulging in the inter-costal spaces, left chest more movable on respiration, tumor in fifth inter-costal space, extending from axillary line to angle of scapula; anteriorly on right side percussion note tympanitic to lower border of eighth rib; hepatic dulness three inches below free border of ribs. Auscultation reveals absence of normal respiratory sounds on right side, amphoric breathing anteriorly and indistinct bronchial breathing between scapula and spine; friction sounds over base of right lung, increased by pressure on the tumor; impossible to produce succussion and metallic tinkling; exaggerated respiration over left lung. Temperature 101° F., in the rectum, pulse 160, respiration 80. Firm pressure was made over tumor by a gauze compress and rubber plaster, which produced more comfort and less laborious breathing. Examination of sputa revealed streptococci, but no tubercle bacilli or shreds of lung tissue. It is

probable that the child had an empyema, which had ruptured and discharged itself through the lung. In March, 1895, the baby was in good health, and, save friction sounds at the base of the right lung, showed no evidence of the disease. The case is of interest, chiefly because succussion and metallic tinkling, which are given in text-books as physical signs of pathognomonic importance, could not be elicited.

MENTHOL IN DIPHTHERIA. — Kas-torsky reports 37 cases of diphtheria treated and cured by painting with a 10 p. c. alcoholic solution of menthol; marked improvement in the general condition was invariably noticed from the beginning of the treatment. The paintings, by means of a piece of cotton-wool, were usually carried out three times daily, and in some cases a single free application was followed by complete disappearance of false membranes within two days. The same simple method was invariably practiced by the author in numerous cases of anginas of various forms, and by Tritovsky in a group of cases of scarlatinal diphtheria. The paintings are said to be painless and quite harmless.—*The Lancet* (London.)

Obituary.

LOUIS PASTEUR. — Professor Louis Pasteur died at his home, near St. Cloud, on the 28th of September.

Professor Pasteur was the foremost chemist and biologist of his day, and while he has ceased from his earthly labors, his name will live on for

generation after generation, and his fame will be the brighter in the centuries to come. The discovery of the causes of infectious diseases and the wonderful possibilities of modern aseptic surgery are largely based upon his work. One after another he took

up various unworked problems, such as fermentation, the manufacture and maladies of wines, the diseases of silk-worms, etc., all of which bore such important relation to the industries and prosperity of his country. These investigations suggested the germ theory of infectious diseases.

Basing his ideas upon the results of Pasteur's investigations, the great Lister introduced the use of antiseptics in surgery. Though by no means the most important of Pasteur's works,

that which has made him most widely known to the people of the world was his investigations into the causes of rabies, and his method of treatment by inoculation.

Louis Pasteur was born December 27th, 1822, at Dole. His father was a soldier and determined that his boy should have an education. He was admitted, at the age of 21, to the Ecole Normale in Paris, where he was graduated in 1846. He was nearly seventy-three years of age at the time of his death.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE NAVY.

Three weeks ending October 12th, 1895.

September 21.—Surgeon D. Dickinson, detached from the "Minneapolis" and ordered to examination for promotion.

Surgeon D. M. Bertollette, detached from the "Atlanta" to duty on the "Minneapolis."

October 3, 1895.—Medical Director E. S. Bogert, detached from duty in charge of naval hospital at New York, November 1, and ordered in attendance on officers of the Navy in that city.

Medical Inspector T. N. Penrose ordered to duty November 1st in charge of the naval hospital at New York in addition to his present duty.

Surgeon R. C. Person's recent orders are so far modified that when detached from the "Minnesota" he is ordered to special duty in connection with the improvements of the naval hospital at New York.

Surgeon L. G. Heneberger is ordered to duty in attendance on naval officers in New York.

MARINE HOSPITAL SERVICE.

For the fifteen days ending September 30, 1895.

Fessenden, C. S. D., Surgeon, is granted leave of absence for thirty days, September 24, 1895.

Bailhache, P. H., Surgeon, detailed to represent service at meeting American Public Health Association, September 24, 1895.

Gassaway, J. M., Surgeon, granted leave of absence for one day, September 21, 1895, and for fifteen days, September 23, 1895.

Carter, H. R., Surgeon, granted leave of absence for one day, September 24, 1895.

Brooks, S. D., P. A. Surgeon, directed to proceed from Chicago, Ill., to St. Louis, Mo., for temporary duty, September 16, 1895.

Williams, L. L., P. A. Surgeon, is relieved from temporary duty at South Atlantic Quarantine and directed to rejoin Station at Charleston, S. C., September 19, 1895, granted leave of absence for twelve days, September 25, 1895.

Kinyoun, J. J., P. A. Surgeon, detailed to represent service at meeting American Public Health Association, September 24, 1895.

Stoner, J. B., P. A. Surgeon, is granted leave of absence for thirty days, September 20, 1895.

Rosenan, M. J., P. A. Surgeon, to proceed from Eagle Pass, Texas, to San Francisco Quarantine Station, for temporary duty, September 16, 1895.

Cofer, L. E., Assistant Surgeon,

granted leave of absence for thirty days, September 23, 1895.

Nydegger, J. A., Assistant Surgeon, to proceed from Savannah, Ga., to Mobile, Ala., for temporary duty, September 16, 1895.

Oakley, J. H., Assistant Surgeon, granted leave of absence for 30 days, September 30, 1895.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

Typhoid fever is reported to be epidemic at Washington, D. C., where upwards of 600 cases have occurred.

The Austrian steamship *Boskenna Bay*, from Habana to Savannah, Ga., has arrived at the South Atlantic Quarantine Station with the master convalescent from, and one sailor ill with, yellow fever.

In an Iowa town quite a number of partakers of a wedding feast have been poisoned. Five deaths have been reported. The feast seems to have been postponed several days for some reason, and the meats being kept, became tainted, with the above disastrous results.

The Sanitarian, in quoting statistics from the *Bulletin* of the North Carolina Board of Health, places Dr. H. T. Bahnson as President, not having discovered that Dr. George Gillett Thomas' name has been appearing as President for about a year.

The Board of Medical Examiners of Pennsylvania do not have much leisure time at their meetings. At the last meeting there were 240 applicants. As the fee is \$25 for each, this would make the receipts for this meeting \$6,000. The *Medical News* thinks as this must greatly exceed the expenses, the fees should be reduced. It also objects to the applicants having to wait two months before receiving their licenses.

CALIFORNIA WINES.—Dr. Bennett F. Davenport, after an analyses of the California wines represented at the Columbian Exposition, compares them with European wines, and concludes that the California dry wines were fully equal to the European wines, and the red wines were in every respect superior to the young French clarets. The sweet wines are to be unconditionally preferred to those of Europe containing the same amount of alcohol and extract, as not being plastered.

Reading Notices.

ACUTE CYSTITIS—Resulting from gonorrhœa and showing symptoms of distress and pain over pubes, frequent and urgent inclination to micturate, urine cloudy and depositing slight amount of mucus on standing.

CHRONIC CYSTITIS—Resulting from enlarged prostate, retained or altered urine, or from gout or nervous derangement—mucus or muco-pus rendering the urine more or less cloudy or opaque.

TREATMENT.—In addition to the mechanical treatment, usually essential in the management of disorders of this class, the administration of Lambert's LITHIATED HYDRANGEA is often of the greatest service. A practitioner of wide experience says: "I have used Lambert's LITHIATED HYDRANGEA on various persons affected with divers and painful manifestations of chronic rheumatism, gout, lithiasis-urtica, nephritic calculus and functional disturbances of the renal system, with excellent results, and I consider it a valuable remedy for normalizing the renal function, for promoting the active elimination of uric acid and to calm the congestive conditions of the kidneys and of the urinary mucous membrane."

LACTOPHENIN.—I have tried this new remedy as an analgesic in over 800 cases. In over 100 cases of pneumonia I have had occasion to notice its effects, and the fact that it is a safe and speedy antipyretic. I cannot

say too much of its soothing effects on the nervous system and of its general superiority above all other synthetic analgesics.

Recently I had occasion to prescribe it for a case of occipital neuralgia after all other remedies had failed, and the relief that was afforded was both speedy and permanent. I sometimes find it advantageous to combine it with caffeine.

One notable fact about Lactophenin is, that in no instance has it ever appeared to induce that blue, livid condition of the lips and face that so frequently succeeds upon the administration of acetanilid, antipyrin, phenacetin, etc.

In inflammatory rheumatism and in la grippe, in conjunction with quinine and salicylate of soda, it is my sheet-anchor; in the former malady it is advantageously alternated with syrup of trifolium compound.—Dr. J. C. Dwyer, Valentine, Neb., in *The Med. Age*, April, 1895.

A PHARMACEUTICAL TRIUMPH.—There is probably no laxative or cathartic in the materia medica which is more widely known and more generally used, especially as a home remedy, than castor oil.

Its only objection has been its taste. Now however, even this has been removed and we have "A Pleasant Castor Oil."

Laxol is pure castor oil sweetened with benzoic sulphinide and flavored with oil of peppermint.

By referring to our advertising pages, the readers of this journal will learn how they can procure samples and literature without expense.

Laxol is used throughout many of the best hospitals in the East, where it has been known for some time.



I am very truly yours
R. L. Payne, M.D.

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Original Communications.

ROBERT LEE PAYNE, M.D.

BY C. A. JULIAN, M.D., Thomasville, N. C.

The death of Dr. R. L. Payne removes a personage familiar to our citizens and conspicuous in the affairs of the North Carolina Medical Society. Robert Lee Payne was born at Lexington, Davidson county, in North Carolina, December 29th, 1834, and was the son of Dr. C. L. Payne, a prominent and influential physician in that place and a grandson of R. L. Payne, of Goochland county, Va. His father and mother were Virginians by birth; the ancestry on the paternal side were English and on the maternal Scotch. He began his literary education at the old Caldwell Institute, Hillsboro, N. C., and continued to prosecute his studies at Davidson College and University of North Carolina. Having thoroughly qualified himself to commence the study of medicine, he was sent to the Jefferson Medical College, Philadelphia, from which Institution he graduated in 1857. He immediately entered his father's office in Lexington, and remained in copartnership with him until his death. After the death of his father he formed a copartnership with his brother, Dr. C. M. Payne (now Rev. C. M. Payne, of Washington, N. C.), then with his son, Dr. R. L. Payne, Jr. Dr. Payne joined the North Carolina Medical Society in 1859, and he helped to lay the deep foundation upon which was reared our grand superstructure.

His attainments were fully recognized by his fellows, and, as an evidence of their high regard, he was elected Vice-President of the North Carolina Medical Society in 1870, Annual Orator in 1871, and in 1872 he was elected for six years one of the Board of Medical Examiners, a position for which his character and experience particularly fitted him. Conscious of the grave responsibility he assumed in this capacity, he made his examinations most thorough, but tempered them with such kindness and sympathy as to remove much of that embarrassment and dread which most young physicians expe-

rience when applying for license. In 1878 the Society conferred upon him their highest honor by electing him as their President. In this capacity he exhibited his strong mind and intellect. Dr. Payne was elected honorary member of the Abingdon Academy of Medicine in 1887. He was elected a member of the North Carolina Board of Health in 1879, and served with distinction for a term of six years. He was again unanimously elected to succeed himself, but declined the proffered honor. He was corresponding member of the Gynecological Society of Boston, of the Meigs and Mason Academy of Medicine, and was examiner of the Confederate Board and Home Guard Board during the late war. For nineteen years he was the attending physician to the Poor House of Davidson county. His natural kindness of heart and his peculiar way well qualified him for this work. Few have possessed more delicate sensibilities, a warmer heart or kinder sympathies. Especially did his tenderness manifest itself for those unfortunate beings, the poor—none of them were overlooked, none had just cause to feel themselves neglected. There was no selfishness in his ambition; one of his strongest characteristics was his tenderness for everything weak; this was manifested especially toward the young physicians of his acquaintance.

Dr. Payne had other qualifications aside from his chosen profession. His enterprise and activity among his townsmen won for him great admiration and a high regard for his opinion in municipal affairs, and in consequence as often as he would accept, he was elected magistrate and commissioner of his town.

Dr. Payne was a man of scholastic and literary attainments. He applied himself rigidly to every task, and the works from his pen indicate an erudition much more extensive than the ordinary. In 1887, Davidson College, recognizing his ability and scientific attainments, conferred upon him the honorary degree of Master of Arts. He contributed liberally to the transactions of the North Carolina Medical Society and wrote many articles for the *NORTH CAROLINA MEDICAL JOURNAL*, *Medical and Surgical Reporter*, *Virginia Medical Monthly*, *Louisville Journal* and most of the leading journals of the day, and in all his writings he exhibited strength of thought, sound common-sense and felicity of expression. His article on Diphtheria deserves especial mention, being pronounced by some of our most successful practitioners as worth more to the physician seeking to cure his patients than all other books and papers combined on the subject. This article, with a paper entitled "The Health of Our School-Girls," were reprinted and largely distributed by the Board of Health in the State.

Dr. Payne, as a practitioner, was eminently successful, faithful, skilled and much beloved, and enjoyed a very extensive practice. His manner in the sick-room was exceedingly nice, for the time being he seemed oblivious to everything else, concentrating the whole of his powerful nature on the one object of his visit—the relieving of his patient.

He devoted his attention largely to surgery and diseases of women, and the profession attested his attainments by sending for him in council in and out of the State. He was quick to respond to a brother physician in distress. He never let an opportunity escape to harmonize the profession about him or to elevate its tone. The Davidson County Medical Society, of which he was President at the time of his death, owes perhaps more to him than to any other man.

In May, 1856, Dr. Payne married Miss Winifred T. Wilson, daughter of John Wilson, Esq., formerly of Danville, Va. She is a woman of excellent traits, with a generous, warm and loving heart—a fit consort for her noble husband. She, whom none thought could endure the wear of years as long as he, remains to mourn the loss of an affectionate husband. This union was blessed with the birth of five children, four of whom survive him—one son, Dr. R. L. Payne, Jr., on whom the mantle of the father has fallen, and three daughters, Mrs. M. P. Fowle, of Washington, N. C.; Mrs. Fannie T. Sparrow, of Washington, and Mrs. Bessie W. Beckwith, of Plymouth, Pa.

His was a model home, cared for by a devoted husband, a wise and loving father, generous almost to a fault, hospitable to all.

Dr. Payne was a truly honest, upright Christian physician, and remained a faithful and consistent member of the Presbyterian Church until his death. By precept and example he strove to do his part for the honor and glory of his Master. His Christian character, both in life and death, was fully exemplified. From 1861 to the day of his death, he was a Ruling Elder in his Church. He felt the assurance of his reward. His last words were, "Lord Jesus, receive my spirit."

About noonday, on the 25th of February, 1895, word came suddenly that Dr. Payne had been assassinated on the streets of his native town. The news created the greatest sensation and consternation. The people were overwhelmed by so unexpected an event. The profoundest grief was everywhere evinced. Immediately upon hearing of his death, telegrams poured in to the bereaved family from friends and members of the medical profession, expressing their great sympathy and indignation on account of his untimely death. Torn ruthlessly, while yet in his full strength and manly vigor, from his work he loved so well, scarcely before the furrows of age had plowed his noble brow—torn from an affectionate wife and loving family—still his death was calm and resigned. The funeral solemnities were conducted on the 27th of February last. Hundreds of people attended and followed him to his last resting-place. His remains were borne from his grief-stricken home to the church, where appropriate ceremonies were performed by ministers who paid tender and affectionate tributes to his memory. The entire church was hung in mourning. After the remains were viewed by the sad assemblage, the body was placed in the hearse, drawn by the horses that had conveyed him so many weary miles in his daily practice, followed by the family; after them came all the physicians of the county and from various parts of the State, and the rear was formed by the people of the town and community, who expressed their grief by their silent tears.

That such a life should be stricken down at its zenith seems pitiable, but it is not, when we recall its fullness of labor, the noble record it has left—when we remember how consecrated it was to its Creator, it becomes a marvelous heritage, full of choicest memories which shall live forever.

OPERATION FOR DOUBLE PYOSALPINX.

BY WILLIAM H. WATHEN, A.M., M.D., Louisville, Ky., Professor of
Abdominal Surgery and Gynæcology in the Kentucky
School of Medicine, etc.

This afternoon (March 26th, 1895), assisted by Dr. Louis Frank, I removed these pus-tubes before the class at the Kentucky School of Medicine Hospital. I do not know the history of the case, as I only saw her once before the operation, and in a hurried examination concurred in the diagnosis made by Dr. Frank. The uterus was firmly fixed in the pelvis, and upon one side there was a distinct enlargement; on the opposite side there was an enlargement that was not apparently quite so extensive. The patient was in good condition for operation, and left the table with a pulse of 80 and normal in every way. I have not seen her since, but have been informed that she is still in the same condition.

The adhesions were found to be very tough and extensive; fortunately, however, there were no adhesions of any part of the ileum or of the sigmoid flexure of the colon, though the tumor was wedged deep into the cul-de-sac behind the broad ligament and in direct relation with the rectum. The tumors, one upon each side, were finally enucleated, tying off a large pedicle, without any loss of blood and without soiling the peritoneum with pus, and ruptured after we had gotten it out of the cavity, the pus being caught on gauze sponges. After these tubes were removed, at the bottom of the pouch of Douglas and a little to the right, was an induration nearly as large as a silver dollar, extending back toward the sacrum, apparently of a very friable nature, and in the centre of it a little depression, about $\frac{1}{4}$ of an inch in diameter. It apparently was too far to the right to enter into the rectum, but we do not always know exactly where the rectum lies in such cases, and, thinking possibly there might be a small opening into the bowel, I had one of the assistants introduce his finger into the rectum. He found no opening. However, fearing there might be, I introduced a Mikulicz gauze tampon, spreading it out in such a way as to protect the peritoneum and the intestines from any leakage that might occur in the event of there being an opening. The nurse was directed to insert a rectal tube, so that gas would not accumulate in the lower bowel, and not to use an enema for fear the water might enter the peritoneal cavity and cause death. Even if there is an opening, this woman ought to make a good recovery. A sinus may then remain in the lower part of the wound for some time. The gauze will be kept in a few days.

At the last meeting of this Society the question was discussed briefly as to the removal of pus-tubes, together with the uterus, through the vagina, and

*Reported to the Louisville (Ky.) Clinical Society.

I then expressed my belief that we were often unable to diagnosticate a condition favorable to this operation until the abdomen had been opened and we had examined the conditions present; giving at that time an illustrative case that I had operated upon a week before, where there were extensive intestinal adhesions, which would have prohibited any complete operation through the vagina. In the case operated upon to-day, had I known the exact condition, I should have operated through the vagina, removing the uterus and tubes. By this method, even had the rectum become injured, there would have been no reason to expect any trouble and the woman would unquestionably have made a speedy recovery. Where the ovaries and tubes are removed for pyosalpinx, the uterus is usually diseased, because pus-tubes are generally caused by extension of disease from the endometrium. Now, that being true, and the fact that the woman can never bear children, leaves the uterus a useless organ and probably a very troublesome one, and if the operation can be done per vaginam, it is no more dangerous to remove the uterus, tubes and ovaries than it is to remove the tubes and ovaries from above, if you meet with no complications in that operation. I have recently read a very exhaustive paper upon the subject of vaginal hysterectomy for pus-tubes and for uterine myomata, published in the March issue of the *American Journal of Obstetrics*, giving statistics of some of the best French operators; the mortality in pus-cases being less than 5 per cent, and for uterine myomata one and seven-tenths per cent. If you will take the pus cases and exclude the operations of two surgeons, we find the mortality about 3 per cent., which is certainly a very excellent showing. These cases were reported to have been entirely relieved. We know that in celiotomy, where we remove the tubes and ovaries, where extensive adhesions exist, the women are not all relieved and many of them are badly crippled for a long while, some always. We find these women with obstruction of the bowels; with adhesions from pus sinuses lasting for years; with ventral herniæ—and even without these conditions we see them still in a state of invalidism. I could refer to a number of cases where the patients have not been very much improved as regards their symptoms, and I believe these patients would be cured were we to remove the uterus.

I intend to study this question very carefully and to operate more per vaginam than I have been doing, though, as previously stated, I cannot see how we can tell where the uterus is immovably fixed in the pelvis, whether extensive intestinal adhesions have taken place, and serious injury might then be done the intestines if an operation were performed through the lower channel.

MULTIPLE EPULIS OF THE LOWER JAW.

By WILLIAM L. RODMAN, A.M., M.D., Professor of Surgery and Clinical Surgery, Kentucky School of Medicine; Surgeon to Kentucky School of Medicine Hospital, etc., Louisville, Ky.

About the 5th of January, 1895, a young man, aged 26 years, was brought to me from Winchester, Ky., with what seemed to be an ordinary epulis growing from the lower jaw. He stated that the growth had been painless, and there were no enlarged glands in the submaxillary region. Upon examination of the growth, it seemed to spring from the periosteum. I certainly thought it did, but when a more thorough examination and dissection was made under ether, I found the tumor growing from the interior of the bone. To my surprise I found the outer wall of the lower jaw practically gone—very thin in some places and entirely absent in others, and, instead of finding a growth from the periosteum, I saw something which, in my experience, is rather unique, although such cases have been reported: I found four small growths, each distinctly pedunculated, growing from a cavity within the lower jaw. When these were removed, a cavity was left in the bone large enough to easily admit a good-sized walnut. Specimens have been turned over to the microscopist for examination, but his report has not yet been received. I think the growth was benign on account of the appearance of the tumors, further on account of their chronicity, having lasted six years, and because the general health of the patient was excellent. I was compelled to remove quite a large portion of the lower jaw in order to insure complete removal.

The patient made an uneventful recovery from the operation and has returned to his home.

I was led to do a rather more thorough operation in this case than I would have done if the statistics on this subject did not show that 80 per cent. of all tumors of the lower jaw are malignant, rather a larger per cent. than in tumors of the upper jaw, the latter being about 76 per cent. I read a paper on this subject three years ago before the Kentucky State Medical Society, in which I laid stress upon the point that 80 per cent. of all tumors of the lower jaw were malignant and 20 per cent. were benign. In the case I have reported I believe the growth to be benign, and I do not expect repululation.

*Reported to the Louisville (Ky.) Surgical Society.

Selected Papers.

CARDIAC STIMULANTS.

BY HERMAN F. VICKERY, M.D., Boston, Mass., Instructor in Clinical
Medicine, Harvard University, etc.

The condition of the heart is constantly watched by the medical man. From time immemorial all physicians have sought in the pulse as exemplifying the heart of their patients important aid with regard to diagnosis and weighty suggestions as to treatment. To-day no practitioner is too wise and none too simple to regard it. Neither the gravest consultation nor the most hurried and perfunctory visit is ended before skilful fingers, watched with a mixture of awe and approved by the family, have dwelt upon the radial artery. In all diseases at all stages the behavior of the heart is considered both as an index of the bodily state and a guide for the management of the case.

Unfortunately, this singular unanimity of the profession scarcely extends to the interpretation of the silent message which the heart vouchsafes, and still less to the mode of treatment appropriate to the occasion.

It is the object of the present paper to lay down some general rules as to the choice of cardiac remedies.

As has already been intimated, such a subject touches upon or overlaps all therapeutic measures in all conditions, so that our present consideration will unavoidably be very limited in its scope and incomplete in its details. Yet it is hoped that some practical benefit may be obtained.

In a general way, the disorders of the heart may be divided into those in which it shares in a general weakness of the system, and those in which the original trouble is circulatory, using the word in its broadest sense.

The term general weakness is meant to include nervous debility. It is an interesting fact that the great majority of patients who come voluntarily to a physician because they believe the heart to be diseased are happily mistaken, and are really either dyspeptics, hypochondriacs, sufferers from intercostal neuralgia or addicted to some excess which has occasioned palpitation. The hypochondriacs are, many of them, medical students, some of whom come in anxiety each year to their instructors for examination. I can recall only one of all such whom I have happened to auscult who actually had an organic lesion. The cases of intercostal neuralgia are apt to be anemic and to have tender spots along the course of an intercostal nerve and the heart is found to be normal. The victims of excess (in tea, coffee, tobacco or venery) are numerous. Their general appearance betrays them; and their heart-sounds have a hurried, quick, sharp, and as it were impatient character at

the apex, unassociated with enlargement or persistent murmur. There is little muscular element in the first sound. There may or may not be a slight basic systolic murmur, or at the apex a systolic whiff, once or twice during each respiratory cycle. The nervousness of the apex sounds is quite recognizable. The auscultatory signs are valuable in these functional cases, because the patient may not voluntarily confess his wrong-doing, and yet it is useless for him to swallow drugs without reforming his habits. It is better that for a time the special indulgence should be wholly stopped, both because total abstinence is more likely to be attained than is temperance, and because even a small amount of tobacco, for instance, will keep the already nicotized heart in its diseased state.

Alcoholic excess often affects the heart in the way just described, but the other bodily effects are usually too evident for one to need to auscult the heart in order to recognize the nature of the case, and besides arterial and myocardial degeneration may be present, so that the prognosis and treatment are not those of functional disturbance.

In the purely functional cases, bromide and a tonic usually bring immediate subjective improvement, and make it easier for the patient to abstain from the exciting cause. If there be anemia, iron is useful; otherwise, I am apt to prescribe compound tincture of cinchona. *Nux vomica* and strychnine are usually regarded as physiologically incompatible with the bromides, but in this class of cases 10 or 15 grains of bromide of sodium and 5 or 10 minims of tincture of *nux vomica* seem to me an efficient combination. An analogous experience is the favorable effect upon some cases of enuresis when the belladonna, which has been used in vain, is combined with *nux vomica* and the enuresis ceases. Clinical facts are sometimes like Wilkie Collins's heroine, "superior to logic."

Tincture of *strophanthus* in a dose rarely exceeding 5 minims, three times a day, has a good effect upon nervous palpitation.

Cases of general and nervous debility sometimes have excessive cardiac weakness out of proportion to the other symptoms. The heart impresses one as thin and flabby. It may be somewhat dilated and there may be innocent murmurs. The condition is not devoid of danger. There may be sudden collapse, with pulmonary congestion and death. At the same time the mind has considerable influence upon the disturbance, so that assurances that there is no valvular disease and that with returning bodily vigor the heart will become strong, contribute to the cure. About two years ago, a gentleman who had returned from a scientific expedition to Mexico with neurasthenia, and whose condition was causing his family much anxiety, allowed me to show him to a class of medical students as an unusually fine illustration of multiple inorganic murmurs. He recovered rather rapidly after a sea-voyage, and is now well and actively engaged in his profession of civil engineer. For this neurasthenic state there is no specific remedy.

Economy of nervous energy and a cautious tonic regimen, with massage, graduated exercise, naps, lunches and such drugs as cod-liver oil, iron, arsenic and strychnine avail more than the ordinary cardiac tonics.

The specific fevers afford the greatest opportunity for careful observation, nice discrimination and good judgment in relation to the heart, of any bodily disorders other than circulatory. Some render the matter attractively simple by saying that fever contraindicates the use of digitalis. Others never allow any patient to get very near death before he swallows a certain amount of this panacea. Some of us believe the better way lies between these two extremes, but we are not above confessing that individual cases puzzle us.

It may be well to dwell somewhat upon the properties of digitalis itself, to learn what are the capabilities of the tool we desire to use. Here we find pretty general agreement that digitalis is a nervous stimulant, acting both on the heart itself and on the vagus nerve, and not directly supplying any energy, but merely developing and regulating that which the heart already possesses. It is therefore plain that the drug, if it leads to the display of more cardiac vigor, inasmuch as it does not contribute to the general store, hastens the time when all energy will be exhausted and death ensue. We have an illustration of this fact in the result of the stimulation of the sympathetic nerve, which makes the heart beat stronger and more rapidly, but also leads to earlier exhaustion than otherwise occurs, while a stimulation of the inhibitory fibres of the vagus in such a way as to slow and weaken the heart, actually enables that organ to store up energy.

Digitalis does more good when the heart is rapid, feeble, dilated, irregular in rhythm, and especially when it is irregular in force. If such conditions develop in the course of any disease, we may expect the drug to bring some improvement. What little force there is will be more efficiently employed and a crisis may thus be tided over, and a complete recovery ensue. In long-continued fevers, therefore, the longer such imperative indications for its employment are deferred, and the shorter time the drug is given, the more good it is likely to do. To prescribe it early in a long illness and where perhaps the only abnormalities in the heart are moderate weakness and a rapidity not disproportionately high as compared with the bodily temperature, will in most cases lead to nausea, malnutrition and early exhaustion, rather than to any good. In this connection might be called to mind the well-known difference in the average pulse-rate of pneumonia and of typhoid fever. In uncomplicated typhoid the heart-beats are lower relatively to the fever than in most diseases, so that if the pulse remains permanently at 120 it is of evil omen, while a rate of 140 in pneumonia is perfectly compatible with a favorable prognosis.

The books mention that digitalis does especial good in the exacerbations of chronic bronchitis beyond what it usually accomplishes in general diseases;

It has seemed to me that the explanation of this lies in the strain long-continued bronchitis and consequent emphysema exert upon the right ventricle, so that many such patients are heart-cripples, and receive the benefit from digitalis that dilated and enfeebled hearts usually get.

The habitual use of digitalis and other nervine cardiac stimulants in febrile diseases should in my opinion be deprecated. Many favorable cases can be guided to a successful issue without a single dose of the sort. The longer the exhibition of such drugs can be delayed, the less harm and the more good are they likely to do; yet, it is not impossible, although in my own limited experience it is rare, for them to save life, for example, in the enfeebled state sometimes seen at the crisis of pneumonia, the subcutaneous injection of 15 or 25 minims of tincture or digitalis may be of decided advantage.

In general systemic diseases, nux vomica or strychnine, alcohol and coffee commend themselves as more often useful and less often harmful than is digitalis. A temporary stimulation in collapse may be got from a hypodermic of atropine, $\frac{1}{8}$ of a grain, or of cocaine, $\frac{1}{4}$ a grain.

In the acute diseases of the heart cardiac sedatives, such as aconite, are sometimes preferable to stimulants. Every effort should be made to lessen the demands upon the affected but indispensable organ, by enforcing physical and mental rest, and by giving only easily digested nourishment in moderate amounts. If the circulation is being passably maintained, we should let well enough alone. The additional strain consequent upon the stimulation of digitalis and the like, may magnify the inevitable damage done to the valves, aggravate the inflammation of the roughened pericardium, or exhaust the already impaired vitality of the muscular walls.

In chronic valvular disease our first duty is to see that the demands made upon the enfeebled heart are not too great, or at least no greater than is absolutely necessary. If we can lessen the expenses of the economy so that they shall not exceed its diminished income, the heart may long continue to do a satisfactory business at the old stand. If, while it is thus carrying on the circulation, some one gives digitalis, not because it is needed, but because there is a murmur, the heart may be prematurely exhausted. If, however, compensation has been ruptured, then digitalis may be of great benefit, tending to contract the dilated ventricles and to strengthen and regulate the heart-beats.

All agree that mitral disease in its later stages is helped by digitalis; but, in regard to aortic regurgitation, many have an apprehension that digitalis may not be free from harm, because, the diastole being lengthened, more chance will exist for blood to regurgitate into an already over-burdened left ventricle. In reply to this objection, we may say that digitalis tends to contract the left ventricle if dilated and also to invigorate it and to render its contractions more efficient—advantages which more than counterbalance the lengthening of the diastole. One explanation why results are more unsatis-

factory in cases of aortic regurgitation is, that when once the heart begins to fail in this disease, life is near its termination and no drug, not even digitalis, can long defer death; whereas in mitral disease existence for years after the first symptoms of ruptured compensation is the rule rather than the exception.

An unfortunate characteristic of digitalis is, that it contracts the arterioles and raises the intra-arterial tension, so that it is worse than folly to give it where the pulse is already of high tension and the aortic second sound loud and booming.

When there are symptoms of cardiac failure, when the apex cannot be located, the heart-sounds are feeble, though without a murmur, and the radial artery is calcified, we know that the degenerated myocardium will not long respond to any stimulus. The rational line of treatment lies in the direction of lessening the heart's burdens, both by general measures and by the specific employment of nitro-glycerine to diminish arterial resistance; and we may also prescribe potassic iodide in the hope that its absorbent powers may open up once more the calcified coronary arteries and permit the better nourishment of the heart-muscle. Iron and arsenic may also contribute to nutrition. Strychnine and strophanthus often prove to be good stimulants. Alcohol is nothing but a palliative, and in this or any chronic cardiac disease is open to the grave suspicion of promoting degenerative processes. Against the exposition of digitalis is its unfortunate property, just mentioned, of raising the intra-arterial tension. Given in combination with nitro-glycerine, we may hope to get the beneficial effects of both drugs. Abstract considerations aside, we do meet with cases of chronic myocarditis where nothing else gives the comfort which digitalis affords. It seems to search out and utilize every mite of energy the expiring organ still possesses. The subcutaneous employment of morphine is also sometimes valuable in the terminal stages of this and other forms of heart disease, not only giving relief, but relieving the patient from impending death.

Sparteine, adonidin, cactus grandiflora and convallaria majalis may in certain cases be useful. They rank far below the remedies already mentioned. With regard to the choice of a preparation of digitalis, I believe that the tincture is as efficient as the infusion, and that the apparent superiority of the infusion may very likely lie in the fact (pointed out recently by H. C. Wood) that much stronger doses of the latter are given than of the former. In the present U. S. Pharmacopeia the infusion is made one-tenth the strength of the tincture, while its dose is said in the National Dispensatory to be not ten, but twenty-six times larger. If we determine to try the drug in a given case, we should be prepared gradually to push the dose, if necessary, till either benefit or toxic symptoms are produced.—*Boston Medical and Surgical Journal*.

THE DANGERS OF CHLOROFORM ANESTHESIA—HOW TO AVOID AND OVERCOME THEM.

BY FRANK C. WILSON, M.D.

The frequent occurrence of death during the administration of anesthetics, forcibly impresses upon us the dangers incurred and the importance of a careful review of the subject. A community is shocked by the announcement of the sudden death of one about to undergo some trivial surgical operation. Ineffectual efforts at resuscitation having been made, the coronor is called, an investigation held and a verdict returned of unavoidable death during the administration of an anesthetic.

If happily the efforts to resuscitate have been successful, the patient is brought back to life from death's door and the intense strain lifted from the lives of the doctors concerned, and possibly the patient never realizes the danger from which he has so narrowly escaped.

Dangers may arise:

1. From impurity in the anesthetic used.
2. From administering it to improper subjects or to those not properly prepared.
3. From administering it in an improper manner.
4. If an accident occur the danger will be vastly increased by a failure to detect the earliest indications and to promptly institute measures of resuscitation.
5. Danger is increased in proportion to the prolongation of anesthesia.

As by far the greater number of deaths occur from the administration of chloroform, I will direct the most of my attention to a consideration of the dangers incident to its use. The selection of the anesthetic to be used, however, should be made with the greatest care, choosing the one best suited to the individual case. If there be serious disease of the bronchial tubes, or of the kidneys, then ether should *not* be used. If there is a condition of extreme prostration from any cause, then ether should be preferred to chloroform.

The danger from impurity of the anesthetic used may be minimized by using an article carefully tested and vouched for by a reliable maker, or, better still, by using only such as you have yourself carefully tested.

In chloroform there may be present acid, usually hydrochloric, revealed by the use of litmus paper, and by precipitating with silver nitrate.

If the specific gravity is under 1.488, alcohol is most likely present. Aldehyde, if present, produces, when heated with caustic potash, a brownish color, and when heated with a solution of nitrate of silver, a silvery film upon the sides of the test tube.

Organic and empyreumatic substances are revealed by coloring sulphuric

acid when shaken with it. If shaken with water and then the water added to cooked starch in the presence of potassium iodide, the blue color indicates the presence of chlorine.

Chloroform, if pure, should leave no residue after evaporation, nor should there be any odor left. Pictet chloroform is said to be absolutely pure.

Every patient should be carefully examined, the condition of the heart and lungs known, and that of the kidneys ascertained by the test of the urine.

If there is a condition of great prostration or collapse from any cause, then chloroform, if used at all, should be watched with the greatest care. In such cases ether is to be preferred.

Simple, uncomplicated organic disease of the heart does not necessarily preclude the use of chloroform, but ether is safer unless there be present bronchial inflammation or disease of the kidneys.

If there be found affections of the brain, chloroform is best. Examine the mouth to ascertain whether there are false teeth or plates, and if present, insist upon their removal.

The proper preparation of a patient will require abstinence from food for four or five hours prior to the operation, the promotion of a tranquil state of mind by cheerful and assuring conversation. One or two tablespoonfuls of whiskey should be given a half hour before, or, in lieu of this, $\frac{1}{4}$ grain of morphia with atropia, or $\frac{1}{4}$ grain sulphate of spartein may be used hypodermically.

Rosenberg observes that cardiac syncope is an incident of reflex origin, due to an excitation of the peripheral terminations of the trigeminus in the nasal membrane. He thinks that the local use of a spray of a 2 p. c. solution of cocaine in the nose will suppress all the phenomena of reflex irritation and eliminate much of the danger incident to chloroform anesthesia.

All clothing which will in any way interfere with respiration, should be loosened. If the weather is cool, see that the body and limbs are warmly protected.

The best and safest mode of administering the anesthetic is that which will procure anesthesia with the least degree of resistance and struggling. The simpler the apparatus the better.

Many of the various forms of inhalers are complicated and hard to keep clean. The simple wire mask covered with cloth, upon which the chloroform is dropped, is both efficient, economical and cleanly.

In the use of chloroform with the cone, and with many of the inhalers, it is impossible to estimate the amount of chloroform the patient actually inhales. It is not the amount of chloroform which has been poured upon the cone, but the quantity which has passed into the circulation which is the vital question.

In order to obviate this difficulty, I have adopted the plan of vaporizing the anesthetic from an atomizer, the bottle being so graduated as to indicate

at a glance exactly how much is being used. As chloroform is thrown into the inhaler or cone none is wasted, but all passes directly to the lungs, and there can be no uncertainty as to the amount used.

The first inhalations should only be commenced when the surgeon has so far advanced in his preparations as to insure no delay in commencing the operation as soon as the patient is fully anesthetized. To have to keep the patient under the anesthetic five or ten minutes, while the surgeon completes his preparations, is to jeopardize his chances to that extent.

The inhalations should be commenced so gradually and the vapor so largely admixed with air as not to induce struggling, coughing or strangling. If either of these conditions supervenes, it indicates the necessity for the admission of more air.

The pulse and respiration should both be watched closely, and the first irregularity noted in either or both should be instantly followed by a withdrawal of the anesthetic and a substitution for it of oxygen gas.

The sensibility of the cornea should be noted and the pupil closely watched. After the pupil has been contracted, to note a sudden and wide dilation should be accepted as a warning of danger and promptly acted upon.

Every known means of resuscitation should be at hand so as to be used without delay when needed, for only then can efforts be effective.

It would be well, therefore, for every one who is often called upon to administer anesthetics, to be provided with a regular anesthetic case containing every appliance and remedy that can be of service in any possible emergency.

There should be found in it, besides a bottle of tested chloroform and a can of pure ether, the most convenient appliances for administration, a cylinder of compressed oxygen, provided with the necessary tubing for attachment to a face-mask or to a soft rubber laryngeal tube, the use of which may be necessary if artificial respiration is required. The attachments should also be arranged so as to be able quickly to substitute it for the chloroform vapor when any threatening symptoms are noticed.

In this case there should be a hypodermic syringe ready for instant use, together with prepared standard solutions of strychnia, atropia, digitalis and nitro-glycerine.

In an emergency, to consume four or five minutes in preparing the hypodermic solution is to lose valuable time which may cost the patient his life. Everything done should be without delay. Therefore all solutions for hypodermic use should be prepared and ready for instant use. An inspirator may possibly be needed to relieve the engorged right heart.

A vial of good whiskey should not be overlooked, and one of ammonia may be needed; also a few pearls of nitrite of amyl.

It is questionable whether a faradic battery can be of any real service. Some even contend that its use is harmful rather than good.

The ever-watchful chloroformist, not the surgeon, should be the first to

note signs of danger, such as the irregular breathing or the failing pulse, the sudden pallor of countenance, the rapid and wide dilatation of pupil previously contracted. As soon as any of these signs of warning are noted, the chloroform should be instantly withdrawn, the head lowered by removal of the pillow, and even by allowing it to hang over the edge of the table. As claimed by Bard, this position has special advantages, in that it lessens the friction of the inspired and expired air, raises the epiglottis, occludes the esophagus, opens the epiglottis, diminishes liability to syncope, prevents stertor and increases the capacity of the thorax. The feet should be elevated, the chest compressed, so as to expel, as far as possible, the contained air which is saturated with chloroform not yet absorbed.

If no efforts at breathing are yet noticed, artificial respiration should be at once instituted and kept up as long as there is any hope of success. While artificial respiration is being practiced oxygen gas should be given so as to quickly displace the chloroform still present in the system. If the heart is still beating, though weak, inject hypodermically $\frac{1}{10}$ grain of strychnia nitrate, or $\frac{1}{10}$ grain of nitro-glycerine. Whiskey should also be given subcutaneously.

As in the asphyxia of the new-born, the sudden impression of cold, as by the application of ether to the surface, or the insertion of an ice-pencil in the rectum, may cause a quick inspiration which will turn the tide from death to life.

The responsibility of the anesthetizer does not cease with the termination of the operation, but only upon the return to complete consciousness. And he should be fully assured of the satisfactory condition of the patient before he leaves the room.

The nausea and vomiting, so often troublesome and annoying to the patient and jeopardizing the success of the operation, may be greatly lessened, if not entirely prevented, by following the chloroform with a few gallons of oxygen gas. By this method the effects of the chloroform are quickly dissipated and the return to consciousness the sooner attained.

No one should assume the rôle of an anesthetizer who is not fully impressed with the responsibility of his position, and willing to give his undivided attention to the duties devolving upon him. Surgeons sometimes rashly commit this work to junior assistants, or even to students, who are more interested in watching the steps of the operation than in attending to the duty assigned them. Fatal result is too often the consequence, only discovered by the surgeon from the cessation of hemorrhage. Precious time may thus have been lost, and with it the opportunity of applying successful efforts at resuscitation.

If the precautions herein mentioned should be always followed, I am convinced we would seldom hear of a death under chloroform.—*American Practitioner and News.*

NORTH CAROLINA MEDICAL JOURNAL.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

The Feeble-Minded and Epileptics.

This is a class of unfortunates for the care of whom our State makes no provision, and yet they are entitled to State aid and should be provided with a special home. They are in the majority of cases dependent, being the offspring of poor and ignorant parents. The insane asylum is not the place for them, and yet the feeble-minded should not be permitted to be at large. They are irresponsible, and, while more likely to bring disaster upon themselves than others, they are, to a great extent, dangerous. We know of the case of a negro boy entering the room where

some little girls were sleeping. He gained entrance through a window, opening on a roof, and awakened the oldest of the children by touching her. He made his escape, but was captured the next morning and sent to the asylum. Had he been responsible he would have been hung, and yet that boy, or man, for he is of age, is *again at liberty* in less than twelve months after his admission to the asylum.

In the State of Michigan a Home for Feeble-minded and Epileptics has just been formally opened. The institution consists of three buildings and cost about \$50,000. The furnishings cost about \$10,000 more.

Such an institution would relieve

our asylums of a part of their burden. Some of these unfortunates are being cared for, or rather kept, at the county homes, but there are exceedingly few of these who receive the care they should have. The average county home is not a Garden of Eden, and is not a suitable place for either a feeble-minded person or an epileptic.

This would be a suitable subject for the attention of the Legislative Committee of the Society.

Priority in Medical Legislation.

The *Virginia Medical Monthly*, in an editorial on "Reciprocity Between State Boards of Medical Examiners," makes the following statement: "North Carolina and Alabama, in the very organization of their State Medical Societies, secured laws requiring examinations of those offering to join their bodies, and they did good. But Virginia was the first State to secure the passage of such laws and to carry them out in such a way as to be thorough in their application to any and all proposing to practice within the boundaries of the Commonwealth."

The Medical Society of the State of North Carolina was organized in 1849, and the first medical laws were enacted by the Legislature of 1858-9. These laws were not enacted to regulate the standing of the members of

the Society, the Society's own laws would do that, but was intended as the entering wedge, which should open up the way for better laws in the future. These laws did not make it a misdemeanor to practice medicine without a license, but it debarred those so practicing from the collection of their bills by process of law—a negative but not a positive penalty. It was a new thing and the people had to be educated gradually into a knowledge of its importance. It was an innovation, an interference with the rights of men, as it were, and any attempt to have enacted such laws as we have now would have fallen still-born. Committees were appointed by the Society session after session to memorialize the Legislature with the object of securing more stringent laws, but it was not until the session of 1885, on the 23d of February, that the law was amended, making it a misdemeanor to practice medicine without a license from the State Board of Examiners.

To the Old North State belongs the honor of being the pioneer in the establishment of laws governing the practice of medicine, to her brave and persevering physicians belongs the credit of hewing out the path through the tanglewood of public opinion, which others seeing have been easily induced to follow.

TABES DORSALIS.—If a person has paroxysmal vomiting and complains occasionally of violent rheumatoid pains in the legs, examine most care-

fully for tabes. You will very frequently be greatly surprised at the ease with which you can make the diagnosis.—*Dr. Hirt*,

Reviews and Book Notices.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol. XVI. W.—Zythus. Government Printing Office, Washington, D. C., 1895.

This volume completes the first series of the Index-Catalogue. This great work, so useful to the profession of the country, was begun by Dr. John S. Billings in 1873. It has proven an enormous work for him and his able assistants, chief among whom was Dr. Robert Fletcher. When the work was begun it was estimated that it would require five volumes of about 1,000 pages each, but the appearance of the Specimen Fasciculus attracted so much attention that contributions poured in, and now, after the completion of sixteen volumes, there is matter sufficient to make five volumes of the new series. The manuscript for the second series has been prepared, and as the appropriation for printing Volume I. has already been granted by Congress, the work will proceed without delay. The Library now includes 116,847 books and 191,598 pamphlets. The author states that nearly all medical writers now living have donated to the Library at least one pamphlet, but he gives a list of fifty contributors who have been especially liberal, and among these we see the names of Dr. E. A. Anderson and Dr. Thomas F. Wood, of Wilmington.

Dr. Billings says: "This is probably the last volume of the Index-Catalogue which will be issued under my personal supervision, and, in closing the work, I can only say that

it has been to me a 'labor of love,' and that I am very thankful that I have been allowed to complete it, so far as the first series is concerned."

With this volume is a supplement of 282 pages, giving an alphabetical list of Abbreviations of Titles of Medical Periodicals Employed in the Index-Catalogue.

The Archives of Pediatrics

Will commence its 13th year with the January issue, under the business management of Mr. E. B. Treat, of New York. For twelve years the "Archives" has been the only journal in the English language devoted exclusively to "Diseases of Children," and has always maintained a high standard of excellence. The new management contemplate general improvements, including an increase of matter and an increased corps of collaborators. We are pleased to note these evidences of prosperity in the career of this truly valuable periodical, and feel quite sure that the new management will leave no stone unturned in their effort to keep it at the highest standard.

The American Year Book of Medicine and Surgery

Is the title of a new Annual announced by Mr. W. B. Saunders, of Philadelphia. The first volume will be ready for delivery January 1st next. It will be under the editorial management of Dr. George M. Gould, whose experience peculiarly qualifies him for the preparation of such a

work. The work will be a review, in one volume, of the valuable contributions to the journals of America and of Europe. These will not be a

retrospect of news one or two years old, but the treatment presented will be synthetic and dogmatic, and will include only what is new.

Abstracts.

RHEUMATISM.—(Dr. D. W. Fenton, *Jour. of the Med. Sciences.*) It is well known that rheumatism may, and often does, attack any of the structures having a synovial or serous membrane for a lining. These are the cerebral and spinal meninges and ventricles of the brain, the eye, the middle ear, all the joints and bursæ, the sheaths of the tendons, the pleura, the peritoneum, the cavities and valves of the heart, the pericardium, and lastly, the whole arterial system. The articulations are probably more frequently affected in the acute form, and the cavity and valves of the heart next in point of frequency, but all the structures mentioned may be affected either in the acute or sub-acute form of the disease, and the number and order of the locations affected may vary within wide limits. So that we may have rheumatism affecting the joints alone, the tendinous sheaths alone, the endo- or pericardium alone, or all of them, and in all of these it may assume the acute form, with fever and constitutional disturbance, or it may be sub-acute or chronic. While the reverse is usually the rule, the heart may be the first organ attacked, and when the heart affection is secondary, the severity of the disease in other parts

is no guide to the severity of the endo-cardial or valvular trouble. In the matter of treatment there seems to be no specific. Digitalis is of particular value in the dangerous periods of threatened heart-failure. Sparteine sulphate and nitro-glycerine are also useful, stimulating the heart without the contraction of the arterioles. Convallaria majalis and cactus grandiflora seem better adapted to mild or not advanced cases. Ergot has done good service in controlling the congestion and hyperæmia of the brain and spinal cord. To sum up:

1. Rheumatism is not merely an affection of the joints, but a serious constitutional disease, which often kills its victim outright, or failing in that, lays the foundation for chronic invalidism and lingering and painful death in after years.

2. Rheumatism affects so great a number of different structures that it practically gives rise to a variety of different affections, from a swollen and painful toe-joint to a dangerous meningitis, from an inflammation of the middle ear to a temporary paralysis of both lower limbs.

3. The heart may be the first organ or the only one attacked; hence the urgent necessity of examining that organ in every obscure case of dis-

case, as well as in all cases of recognized rheumatism, however mild and whether it is articular in character or muscular.

4. The various forms of so-called muscular and chronic rheumatism are rheumatism, and not merely peculiar types of neuralgia, as we were at one time taught to believe.

5. Digitalis, sulphate of sparteine and nitro-glycerine are our sheet-anchors in threatened heart-failure from endocarditis.

6. Every case of rheumatism, whether severe or not, and whether it be acute, sub-acute or chronic, should be considered important, and everything possible done to arrest it before it attacks important organs or produces changes in them that may cause death or serious chronic disease.

LAPAROTOMY IN TUBERCULOUS PERITONITIS.—(Wherry, *The Lancet*.)

The author reports a case of tubercular peritonitis operated upon by abdominal section with irrigation, followed by good results. The patient, a young woman, aged 19, was admitted to Addenbrooke Hospital in January, 1895. Had a good family history and a healthy life previously to the present sickness, which dated back six months. For three months had had a dry, hacking cough, with pain in right side, which lasted three weeks and was followed by shortness of breath. The abdomen had been gradually growing bigger for about nine months. No blood-spitting or night-sweats. In the chest exaggerated breathing sounds on the left side, while the right was dull throughout and breathing diminished; no

pectoriloquy; occasional crepitus at the apex due to friction; no cough or expectoration; abdomen distended, bulging in the flanks, with dulness extending half way to the umbilicus; circumference of abdomen at umbilicus 35 inches. Operation on February 12th. Through a medium abdominal incision three inches long, fifteen pints of fluid were evacuated. There was no evidence of pus or lymph; the whole of the peritoneal lining of the abdomen and bowels within sight or touch, was thickly studded with tubercles, varying in size from a pin's head to a pea. The right ovary felt like a nutmeg-grater. Warm boric douching was used and the abdomen closed as after ovariectomy. The wound was healed on the twelfth day, the patient's condition having already improved. The temperature, which before the operation was 100° in the evenings, was continuously normal. A certain amount of fluid collected afterward, but patient was able to leave the hospital on the 23d of March. This fluid did not seem to grow any less until May, when, with the advent of warm weather, rapid improvement set in, and by September 3d her progress to recovery was complete. She weighed then 143 pounds, and there were no active lung symptoms. The size of the abdomen was normal; she did her work, walked, danced and led the ordinary healthy life of a girl of her age full of vitality.

We must not expect that patients will be cured when all the cavities of the body are full of tubercle, but every chance should be given to surgical procedure as a most powerful

remedial agent in tuberculous peritonitis. By laparotomy the fluid is thoroughly drawn off and the tension is relieved, and whether douching is more than accessory to drainage it is difficult to say. Certainly tapping the abdomen alone makes no such favorable impression on the disorder. Improvement in health may be expected to follow operation, and so give a chance for cure of other foci of tuberculous disease.

EMPYEMA OF FRONTAL SINUS.—(G. Martin, *Annales de Medicine*.) It is not easy to diagnose an empyema of the frontal sinus attended with a bulging backward and downward of the orbital plate. Catheterism through the nares is most practicable, but this manœuvre is extremely difficult in the normal state, though simple and effective when the sinus is distended. Amaurosis and amblyopia are present in certain cases when the pus takes a backward direction and presses on the optic nerve as it enters the orbit. Pain is constant, the visual field is narrowed and the disturbances of all the ocular functions are extreme. In all these cases one should first endeavor to drain through the nose, but if this fails, resort must be had to the trephine, though this leaves a scar.

TREATMENT OF ASIATIC CHOLERA.—(Dr. Elmer Lee, *Jour. Amer. Med. Asso.*) The time in which to treat the patient sick with cholera is exceedingly limited. What is to be done must be executed with rapidity. There is not a moment to lose between the time when the patient is

first seen and the accomplishment of several practical efforts. During the epidemic of 1892 nearly every prominent remedy was used and nearly always ended in more or less disappointment. The mild chlorid of mercury, in large and small doses, salol, which was expected to work great good as an intestinal antiseptic, quinine and many others proved inadequate to arrest the disease, and the mortality of 50 p. c. or over continued to be recorded.

The cause of this disease is perhaps accurately stated to be due to invasion of the blood, and, secondarily, of all the tissues of the living organism, by toxins or ptomaines, which originate in the upper portion of the small intestine at the early stages of cholera. These products of organic activity, whether of animal or vegetable organisms, it is here unnecessary to debate; but these noxious products enter the circulation through the villi of the intestine and rapidly and desperately poison the blood. It is clearly proved that the disease is the result of general blood-poisoning from an intestinal origin. Whatever the chemic nature of the poison may ultimately be found to be, may be safely left to the bacteriologic laboratory. The practical and intensely important part that remains for physicians seeking to cure patients in times of this disease is to realize how much, as well as how little, it is within human power to do. The human organism is prostrated by a fierce and deadly poison. This poison is in the blood and in the cells of the tissues, and its work of destruction is quickly and effectually accom-

plished. Reflectively, to say nothing of experimental research, it would seem to me that the rational and only course that could be advocated with scientific assurance of relief, is to, as far as possible, literally cause to be removed these products which are death-dealing to the body in which they happen to be found

The locality of the development and formation of the toxin in the earlier stages is determined to be in the upper end of the small intestine; and from experience, as well as from the powers of reflective analogy, there is no doubt that the system can be saved from death if the morbid entity, the germ, is literally deluged away from the alimentary canal by the copious use of a remedy that cannot be of the slightest danger to the victim. The amount of water to be used varies in different cases. It is impossible to use too much; it is possible to use too little. From the earliest moment that the patient is seen the propositions should be, first, wash the whole alimentary canal with pure water; wash the lower portion by introducing irrigations of warm soapsuds or merely warm water into the colon sufficiently frequently and sufficient in quantity to cleanse that portion of the bowel effectually. The frequency of washing that portion of the bowel which is accessible from the rectum should be one, or two, or three, or four times a day, according to circumstances. At the same time from one to ten quarts of warm pure water mildly medicated with peroxide of hydrogen or hydrozone should be administered at regular intervals, during the day, as the prescribed

remedy by the mouth. If the patient vomits, very well. Immediately reintroduce the quantity of water that was vomited. No harm can be done in any case, and if it is possible to save life, it is possible to save it through this method. It is the quickest and the surest method of exciting the activity of the kidneys, and is the safest. It is the rational and effective measure for maintaining the volume of the blood. It is the scientific process by which to establish cutaneous circulation in the capillaries.

The use of simple and useful hygienic measures are the same as in other prostrating diseases. Patients should be fed with regularity at not too frequent intervals, giving the proper time, between administrations of simple food, for its digestion. The use of appliances for maintaining the heat of the body are not to be neglected.

THE REMOVAL OF FOREIGN BODIES FROM THE CORNEA.—Mechanics and workmen have learned from oculists (who should have taught them better) the method of removing foreign bodies from the cornea by "picking them out with some sharp or slightly blunted metal instrument. In every factory or workshop every day, and often many times a day, it occurs that pins, knives, etc., are thus blunderingly used, frequently with great injury to the cornea, with the resultant formation of corneal ulcers, keratitis, iritis, or, at least, leucomata. All text-books of ophthalmology advise the use of the "corneal spud" for removing such particles, and every

young physician supplies himself with the instrument. But it is the most outrageously ill-adapted for the purpose conceivable. It is impossible for any patient to hold the eye still enough to permit any hand thus to remove a partly-imbedded grain of sand, or emery, or what-not, without wounding the epithelium of the cornea. For this purpose a rigid tool is absurd, and a rigid metal instrument is the acme of absurdity. Every physician should teach workingmen how easy it is, and how free from any danger of injury, to remove the great majority of foreign bodies on the cornea with a simple wisp of cotton. Any particle not thus removable should not be sought after with pen-knives, awls, pins or spuds, but the patient should be sent to a physician. Twist a little wisp of absorbent cotton, having long fibres, upon itself until the fibrils are well caught, but are not too densely packed upon each other. Fold the roll upon itself and grasp it half an inch from the rounded or curved extremity. The eyelids are held apart by the fingers of the left hand and the patient instructed to look in such a direction as to bring the foreign body into view. By delicate, though firm pressure, the wisp of cotton is brushed, not too quickly, across the cornea, or it is given a slight twist or screw-like movement when deftly pressed against the cornea. Almost invariably the dust-particle is removed at the first trial, being entangled or caught by fibrils of the cotton. Cocaine, blepharostat, spud, time, labor and injury are all dispensed with and happily spared. The procedure may not

be for the commercial advantage of the specialist, but it is worth more to the world than seven "original researches" and prize essays.—*Medical News*.

PUNCTURE OF THE SPINAL MENINGES.—Prof. Furbinger (*Berlin Klin. Woch.*) states that he has now punctured the membranes more than 100 times in 86 cases. The procedure is easy. He recommends that the patient should sit up, at the same time bending well forward, and that the needle be introduced on a level with the under surface or exact extremity of the spinous process. An anæsthetic is unnecessary. Sometimes the aspiration of the fluid was found to cause pain in the neck, back or head, so that the author uses the Pravaz syringe almost exclusively. The amount of fluid withdrawn varied from a few drops to 110 c.c. The amount evacuated does not always correspond to the amount present or to the pressure. Occasionally a bloody or blood-stained fluid was withdrawn. Once, owing to pain in the legs, it was thought that a nerve-root had been pierced. In four-fifths of 37 cases of tuberculous meningitis the diagnosis was established with certainty by the presence of tubercle bacilli. Improvement is so rare that any curative action can hardly be thought of. In the author's opinion the symptom complex of this disease is not in any great measure the direct result of increased pressure. In 2 cases with meningeal symptoms in which no tubercle bacilli were found, the after-examination showed a serious meningitis. In 1 case of chronic hydro-

cephalus the fits lessened after the puncture; the necropsy eventually showed the hydrocephalus to be due to a tuberculous nodule in the cerebellum. In 1 case pus was withdrawn. In 3 cases of cerebral tumor there was slight improvement in the headache in 1 case. There was but slight change in a second case, which subsequently recovered under antisyphilitic treatment. In a third case sudden death occurred the day after the puncture. In a fourth case, much improved by trephining, lumbar puncture was practised owing to a relapse. The symptoms improved slightly, but death occurred twenty-

four hours later. It cannot be said whether the puncture had anything to do with the sudden deaths. In 2 uræmic cases 90 and 50 c.c. of fluid were withdrawn without result. In 1 case of cerebral hemorrhage with rupture into the ventricles, blood was withdrawn, as well as in a case of hemorrhage into the cerebellum rupturing into the fourth ventricle. For diagnostic purposes spinal puncture is most valuable in tuberculous meningitis and when pus is withdrawn. In hemorrhages into the ventricles or subarachnoid space, it may also be of service. Therapeutic results are either absent or only rarely to be seen.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

Three weeks ending October 26th, 1895:

Posse, Major B. F., Surgeon U. S. Army, is granted leave of absence for thirty days.

Edie, Capt. Guy L., Assistant Surgeon, is relieved from duty as Assistant Attending Surgeon, in the City of Washington.

Reynolds, 1st Lieut. Frederick P., Assistant Surgeon, is relieved from duty at Fort Sam Houston, Texas, and ordered to Fort Clark, Texas, for duty, relieving Capt. Benjamin L. Ten Eyck, Assistant Surgeon. Capt. Ten Eyck, on being thus relieved, is ordered to Columbus Barracks, Ohio, for duty.

Quinton, 1st Lieut. William W., Assistant Surgeon, will be relieved from temporary duty at Fort Logan, Colorado, to take effect upon the arrival there of Capt. W. W. Johnson, As-

sistant Surgeon, and ordered to Fort Riley, Kansas, for duty.

Gibson, Lieut. Col. Joseph R., Deputy Surgeon General, will report in person to the President of the Army Retiring Board at Washington Barracks, D. C., at such time as he may designate for examination by the Board.

Billings, Lieut. Col. John S., Deputy Surgeon General, having served over thirty years in the Army, is, on his own application and by direction of the President, retired from active service, this date, October 1, 1895.

Meriwether, 1st Lieut. Frank I., Assistant Surgeon, having been found incapacitated by an Army Retiring Board, on account of disability incident to the service, is, by direction of the President, retired from active service this date.

Birmingham, Capt. Henry P., Assistant Surgeon, is granted leave of absence for one month, to take effect upon the arrival at Fort Trumbull, Conn., of Capt. Geo. E. Bushnell, Assistant Surgeon. Capt. George

E. Bushnell, Assistant Surgeon, will proceed to Fort Trumbull, Conn., and report for temporary duty during the absence on leave of Capt. H. P. Birmingham, Assistant Surgeon.

Rulf, 1st Lieut. John S., Assistant Surgeon U. S. Army, is granted leave of absence for one month, to take effect about November 10th, 1895, with permission to apply to the Adjutant General of the Army for an extension of one month.

Wave, 1st Lieut. Isaac F., Assistant Surgeon, is granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the limits of the Department.

THE NAVY.

For the two weeks ending October 26th, 1895.

Medical Directors G. S. Beardsley and P. S. Wales ordered to duty as members of the Naval Examining Board.

Passed Assistant Surgeon J. S. Sayre, ordered to treatment at the Philadelphia Naval Hospital.

Passed Assistant Surgeon C. H. T. Lowndes detached from the Naval Hospital at Mare Island, Cal., and ordered to the Marine Rendezvous, San Francisco, and in attendance on officers in that city.

Passed Assistant Surgeon C. J. Decker, detached from the Marine Rendezvous and special duty in San Francisco and ordered to the Naval Hospital at Mare Island.

J. C. Rosenbleuth, appointed Assistant Surgeon in the Navy, October 14th, 1895.

MARINE HOSPITAL SERVICE.

Murray, R. D., Surgeon, granted leave of absence for thirty days, October 4, 1895.

Irwin, Fairfax, Surgeon, granted leave of absence for thirty days, October 4th, 1895.

Banks, C. E., P. A. Surgeon, detailed as chairman board for physical examination of officers and candidates Revenue Cutter Service, October 2-8, 1895.

Brooks, S. D., P. A. Surgeon, when relieved from temporary duty at St. Louis, Mo., to rejoin station at Chicago, Ill., October 3d, 1895.

Williams, L. L., P. A. Surgeon, to proceed from Charleston, S. C., to Waynesville, Ga., as Inspector, October 2d, 1895.

Magnuler, G. M., P. A. Surgeon, upon completion of duties at Camp Jenner, Eagle Pass, Texas, to rejoin Station at Galveston, Texas, October 11th, 1895.

Cobb, J. O., P. A. Surgeon, to proceed to Victoria, B. C., and Vancouver, Washington T., on special temporary duty, October 12th, 1895.

Brown, B. W., P. A. Surgeon, detailed as Recorder of boards for physical examination of officers and candidates Revenue Cutter Service, October 2-8, 1895.

Houghton, E. R., P. A. Surgeon, is granted leave of absence for thirty days from date of being relieved from duty at Vineyard Haven, Mass., October 5, 1895.

Prochaska, Emil, Assistant Surgeon, when relieved from temporary duty at Charleston, S. C., to proceed to Cain, Ill., for temporary duty, October 12th, 1895.

Thomas, A. R., Assistant Surgeon, relieved from temporary duty at New Orleans, La., and directed to rejoin Station at St. Louis, Mo., October 3d, 1895.

Greene, J. B., Assistant Surgeon, relieved from temporary duty at Wilmington, N. C., and directed to proceed to Vineyard Haven, Mass., and assume temporary command of the service, October 2d, 1895.

Promotions—Medical Department.

Waters, Major William E., Surgeon, to be Deputy Surgeon General, with rank of Lieut. Col., October, 1st, 1895, vice Billings, retired.

Tesson, Capt. Louis S., Assistant Surgeon, to be Surgeon, with the rank of Major, September 26th, 1895, vice Matthews, retired.

Gardner, Capt. Edwin F., Assistant Surgeon, to be Surgeon, with the rank of Major, October 1st, 1895, vice Waters, promoted.

Houghton, E. R., P. A. Surgeon—resignation accepted, to take effect upon expiration of leave of absence, October 5th, 1895.

Miscellaneous Items.

* Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

FIRE AT THE UNIVERSITY OF VIRGINIA.—This noble and historic Institution sustained a most distressing accident through the destruction, by fire, on the 27th of October, of the main building, comprising the rotunda and annex. At the time of this writing the origin of the fire has not been discovered, but is said to have been located between the ceiling and the roof of the public hall. The whole building was completely gutted, causing a loss variously estimated at from \$100,000 to \$400,000. The old chapel and the student's reading room were blown up by dynamite, thus preventing the fire spreading to the professors' residences and the dormitories on the lawn.

The fire departments of the University and of Charlottesville were assisted by fire companies from Lynchburg and Staunton, and the students of the Institution. The ladies also lent their aid in removing the valuables from the library, and a large proportion of the books, portraits and statuary were saved. Among the last were the statues of Jefferson and the bust of Professor

Mlnor, lately unveiled. The large copy of Raphael's painting of the School of Athens, which was in the public hall, and was valued at \$5,000, was destroyed. There were many valuables lost, which cannot be replaced, and on which it would be impossible to place a money value.

Already a building committee has been appointed from among the Faculty to take steps looking to the restoration of the buildings, and the patriotism of Virginia hearts will not fail to give to the noble old Institution a building even superior to that she has lost.

We regret to learn of the serious accident that befell Mr. Floyd Williams, a medical student from this State, who was injured by the flames while assisting at the fire. We trust that his injuries will not prove serious, nor his suffering great.

LEVEL-HEADED CHINESE.—The Chinese are old fogies, but they say that a druggist who buys drugs should have two eyes, a physician who gives drugs to patients should have one eye, and a patient who takes drugs should have no eyes at all.—*Ex.*

A POULTRY DIVISION AT THE EXPERIMENT STATION.—The North Carolina Agricultural Experiment Station has added another division to the several already in operation, which will be known as the Poultry Division. Among the specific studies for this division will be, first, to ascertain the best breeds of poultry which can be recommended for different sections of the State, how to raise them economically, including the best treatment for diseases and insects, and how to prepare and ship to market all poultry products. It will be the endeavor to foster the industry in North Carolina, so that a profitable and financially paying business may be inaugurated in any locality or on any farm. As but little capital is required, the returns for the investment should always be large.

Dr. Samuel E. Woody has been elected as Dean of the Kentucky School of Medicine, to succeed Dr. Wm. H. Wathen, who had held the office for fifteen years. Dr. Wathen will retain his connection with the College as Professor of Abdominal Surgery, Obstetrics and Gynæcology.

QUITE A GRACEFUL TESTIMONIAL.—Twenty-five thousand dollars have been raised by the *London Daily Telegraph*, in shilling subscriptions, as a testimonial to Dr. W. G. Grace, the noted English cricketer.

ANTITOXIN IN NEW YORK.—A report from the President of the Health Department to the Mayor shows that the mortality from diphtheria for the first nine months of 1895, has been

43.94 per cent. less than the average mortality for the first nine months of the four preceding years. The following table gives the figures:

Year.	Cases.	Deaths.	Per. Ct.
1891	3,686	1,348	36.59
1892	4,158	1,640	37.04
1893	4,721	1,763	37.34
1894	7,446	2,284	30.67
	20,011	6,936	34.66
1895	7,921	1,643	19.43

"If the death-rate from diphtheria and croup during the first, second and third quarters of 1891-4 had been the same as in 1895, there would have been 3,048 fewer deaths in that period. The large reduction in the mortality rate from diphtheria and croup for the first three quarters of 1895 is attributed mainly by the medical officers of this department to the introduction and use of diphtheria antitoxin, and if this remedy had been generally or universally employed, the reduction in the mortality rate would doubtless have been larger."

The American Association of Obstetricians and Gynæcologists held one of its most interesting and satisfactory meetings at Chicago, September 24, 25 and 26, 1895.

The following-named were elected officers for the ensuing year: President, Dr. Joseph Price, of Philadelphia; Vice-Presidents, Drs. Albert Hawes Cordier, of Kansas City, and George Sherman Peck, of Youngstown, Ohio; Secretary, Dr. William Warren Potter, of Buffalo; Treasurer, Dr. Xavier Oswald Werder, of Pittsburgh; Executive Council, Drs. Chas. A. L. Reed, of Cincinnati; James F. W. Ross, of Toronto; Albert Vander Veer, of Albany; Lewis S. McMur-

try, of Louisville; and J. Henry Carstens, of Detroit. Seventeen new Fellows were also elected and added to the list.

The ninth annual meeting was appointed to be held in Richmond, Va., Tuesday, Wednesday and Thursday, September 15, 16 and 17, 1896.

Dr. S. Hassell has removed from Roper to Plymouth, N. C.

The carelessness of a male nurse in the St. Louis City Hospital has resulted in the death of one of two patients whom he poisoned with corrosive sublimate. The doses of the bichloride were administered for doses of magnesium sulphate.

DIVORCE DENIED.—A cruel statement is telegraphed from Kansas City, to the effect that one of the "New Women" who practices medicine in that town, was refused a divorce by an unfeeling judge, who asserted that the reasons urged by her were insufficient to warrant the issuance of a decree. It seems that the bill of the plaintiff alleged that the wicked husband refused to cook the meals while she was engaged in daily practice of her profession, and that he would not even help her prepare the meals, but "laid around" while she was thus engaged. The complainant's tale of woe is probably unique, and deserves more mention than it is likely to receive.—*Jour. Amer. Med. Asso.*

A Post-graduate School of Medicine has been organized in Washington City with the following members: Drs. H. L. E. Johnson, E. L. Tomp-

kins, W. W. Johnston, Samuel C. Busey, J. Foster Scott, H. D. Fry, S. S. Adams, J. Ford Thompson, T. E. McArdle, Charles W. Richardson, James Kerr, G. N. Acker, W. H. Wilmer, M. F. Cuthbert, E. M. Parker, G. Wythe Cook and George Byrd Harrison.

TREATMENT FOR OKLAHOMA INEBRIATES.—Any inhabitant of the Territory of Oklahoma who is of kin to, or a friend of, any habitual drunkard who is resident of the Territory and the head of a family, the Legislative Assembly has ordained, may petition the Board of County Commissioners of the county of the residence of such habitual drunkard for leave to send such person, at the expense of said county, to an Institute within the Territory, for the medical treatment of drunkenness and morphinism, as said Board of County Commissioners may designate, at an expense of not to exceed \$100, including board and lodging; but the sending of such person to such an institution shall be discretionary with the Commissioners, and not more than four persons shall be sent from the same county in any one year. The petition referred to must set forth, among other things, that such person or those of his kin petitioning, are not financially able to incur the expense of his cure, and that he is willing and will agree to attend such Institute for the cure of drunkenness and morphinism, as well as contain his written agreement to that effect, and that he will abide by, and comply with, the rules of such an Institute.—*Jour. American Medical Association.*

Correspondence.

THE SAMUEL D. GROSS PRIZE.

Editor N. C. Med. Journal :

The second quinquennial prize of one thousand dollars under the will of the late Samuel D. Gross, M.D., will be awarded January 1st, 1900.

The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens.

It is expressly stipulated that the successful competitor, who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to Dr. J. Ewing Meares, 1429 Walnut Street, Philadelphia, before January 1, 1900.

Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their

respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

Very respectfully,

J. EWING MEARES, M.D.

A DEATH FROM MURPHY'S BUTTON.

—At a recent meeting of the New York Surgical Society, Dr. Abbe presented a specimen from a case of strangulated hernia, in which five inches of gangrenous bowel had been resected, and an anastomosis effected by Murphy's button. The patient died forty-eight hours after the operation, and it was found at a second operation, performed shortly before his death, that the weight of the button had caused it to gravitate to the bottom of the pelvis, and caused a sharp kink at the site of the anastomosis. Dr. Rushmore thought that the gut must have been paralyzed by the obstruction or the muscular coat would have been able to force the contents through the lumen of the button and straighten out the kink.—*Boston Med. and Surg. Jour.*

TETANUS CURED BY ANTITOXIN.—

Dr. Gibier, of the Pasteur Institute, has received word that a second cure of tetanus has been effected by antitoxin. The case was under care of Dr. J. F. Dyer, of Ottawa, Ill.—*Boston Med. and Surg. Jour.*

THE TREATMENT OF INTERMITTENT FEVER.

BY WALTER M. FLEMMING, M.D., New York.

Before the discovery of the tubercle bacillus, many a cough was allowed to continue without treatment and the real difficulty not suspected until a sharp hemorrhage or a hectic fever revealed the true situation. Only a few months ago diphtheria patients walked the streets with a simple sore throat, while cases of follicular tonsillitis were carefully treated as diphtheritic in character. Nearly all of us were taught that malaria was an earth-born poison, which filled the air with a "fever-generating agent."

Now, all this is changed. The tubercle bacilli can be detected in the earliest stages of phthisis. The Klebs-Loeffler bacillus decides the presence of diphtheria, and the malarial germs of Laveran tell us we have an intermittent fever.

It is natural that we look for a remedy which will destroy these germs or counteract their poisonous products. Indeed, it now appears that we have unconsciously, to be sure, been giving a perfect specific for the cause of the latter disease. Quinine is no longer administered in an empirical manner. We know precisely why we give it and what it does. Quinine exerts a deathly influence over the malarial germ, therefore it may be given with the satisfaction of knowing that it will invariably check the paroxysms of an intermittent fever. If its use is not followed by this cure, then it is certain that it never came in contact with the red corpuscles of the blood. Absorption was incomplete or the quantity of the drug was insufficient. In the light of all this it is certainly bordering on the ludicrous that the National Dispensatory should give a list of seventy-six remedies in the index under intermittent fever.

The patient has usually had a malarial paroxysm before seeking medi-

cal advice. As hepatic activity is necessary to obtain the best effect of the specific treatment, so, in cases of constipation, at least, it is better to begin the treatment with the following prescription, which should be taken five or six hours prior to the quinine:

℞.—Hydrarg. Chloridi Mite,
Sodæ Bi-carb., aa, gr. i.

M. Divide into six powders.

Sig. Take one powder every fifteen minutes, using all the powders.

This is far preferable to giving the calomel in one single dose and in larger quantity. However, it may be necessary, if the patient is insensitive to purgatives, to increase the quantity in the prescription by one-half. While this preparatory treatment is not necessary, yet it is certainly true that after its employment a less quantity of quinine is required and the general condition of the patient is improved.

It has been stated that this treatment should be given five or six hours before the specific treatment. It should now be said that the latter treatment is best inaugurated at such a time that it will be exerting its fullest physiological action when the next paroxysm is due. This time can be quite accurately stated when we remember that a paroxysm often begins an hour earlier than the preceding one, and that about three hours are required for the quinine to be in its most active condition in the body.

To insure prompt and complete absorption, the quinine is best given in liquid form. The following is a favorite prescription:

℞.—Quinia Sulph., grs. xv.
Aqua, - - - oz. j.
Acid Sulph., dil. q. s. ft. sol.

M. et Sig. Take at one dose in one-third glass of water.

With the above preparatory treatment and with the quinine dissolved, this dose is equivalent to at least twenty grains given after the usual manner; while it is certain we should not trust to pills or capsules at such a time unless we know positively that these are in a perfectly soluble condition.

To prevent the uncomfortable head symptoms which accompany full doses of quinine, and also to relieve the pain which is likely to be present at the same time of the expected paroxysms, the following prescription should be given four or five hours after the specific:

R.—Antikamnia Tablets (5 grs. each), No. xxiv (24).

Sig. One tablet every two hours while pain necessitates.

While the above dose of quinine is sufficiently large for residents of most parts of the United States, yet in some of the Southern States and in other sections where malaria abounds with unusual force, it may be necessary to give the quinine as high as twenty, forty, or even sixty grains. But in the great majority of cases the above single dose will be sufficient to prevent a second chill.

In order that there may be no question about the recurrence of an attack, and also in order to bring the system under the influence of a good tonic, the quinine should be continued for one or two weeks in doses of 5 to 10 grains a day. As the malarial germ has left its effects on the nervous system, and often to a marked degree, so a remedy is indicated which will put at rest the disturbed condition. The following will be found satisfactory in every way:

R.—Antikamnia and Quinine Tablets (5 grs. each), No. xxiv.

Sig. One tablet three times a day after meals.

[This tablet contains 2½ grs. sulph.

quinine and 2½ grs. antikamnia, being the most desirable proportion.]

If the physician be called while the patient is suffering from a paroxysm, and he is in doubt as to its nature, he has only to remember that any intermittent fever which resists the action of quinine is not necessarily of malarial origin. Even during the chill of a malarial attack the temperature may rise to 102° or higher, while it is often true that when the chill has passed and the fever is on, the thermometer will show a lower degree of heat. Therefore, no better treatment can be given at the beginning of or during the chill, than the following:

R.—Antikamnia Tablets (5 grains each), No. xxiv.

Sig. Take two tablets immediately. Repeat dose in two hours if pain necessitates.

The antikamnia will relieve the congestion of the abdominal and thoracic organs and will materially alleviate the headache of the second stage especially. In fact, it practically robs the fever of its most distressing features.

When we consider that the cause of intermittent fever is so thoroughly understood and that quinine is regarded as its specific, destroying said cause, how puerile are all attempts to bring forward new substitutes. Although pain may not be dependent upon any special living organism, yet it is certain that in antikamnia we have a most reliable specific.

In regard to the treatment of all forms of febrile maladies, periodic or continued, I have found the Antikamnia Tablets, with their various combinations of codeine, salol or quinine (as indicated in each individual case) the most reliable, prompt and satisfactory remedies in controlling these intractable disorders of any remedial agent known to me in a general active practice of over thirty years.

240 Fifth Ave., New York City.

Reading Notices.

The usefulness of *good* Hypophosphites in Pulmonary and Strumous affections is generally agreed upon by the Profession.

We commend to the notice of our readers their advertisement in this number. "Robinson's Hypophosphites," also "Robinson's Hypophosphites with Wild Cherry Bark" (this is a new combination and will be found very valuable) are elegant and uniformly active preparations; the presence in them of Quinine, Strychnine, Iron, etc., adding highly to their tonic value.

Philadelphia, Dec. 8, 1894.

It gives me much pleasure to testify to the usefulness of your Syrup of Hypophosphites, since my attention was called to it. I have used the syrup in laryngeal and pulmonary tuberculosis and strumous diathesis, so common in children. The result has far exceeded my greatest expectation.

J. A. IRWIN, M.D.,

Late Assistant Children's Department and Assistant Gynecological Department Jefferson College Hospital.

COCAINE IN SURGERY. — Reches again calls attention to the use of Cocaine, and it appears is the only French surgeon who generally employs it to the exclusion of other anæsthetics. He has employed it now

in 3,200 operations, with remarkable success. He describes with minutiae all the details so necessary to observe in its use to secure satisfactory results. He always limits the strength of the solution to one per cent., and makes multiple punctures, when using it hypodermically. He advises against its adoption in those suffering from hysteria or heart disease.—*Revue des Sciences Med.*, 15 Juillet, 1895.—*Railway Surgeon*.

DIASTASE.—Diastase is a vegetable ferment which has the property of converting starchy foods into a soluble material called maltose. Like the ferments in the saliva and pancreatic juice, it acts in alkaline solution, but, unlike them, it continues to operate in acid media, and, therefore, its action is not disturbed by the gastric juice.

Diastase is a peculiar substance which causes the ripening of fruits and vegetables by converting their starches into dextrins and sugars; hence fruit becomes more and more digestible as it ripens.

Maltine is made of three cereals—barley, wheat and oats. *It is rich in diastase.* It may be taken either plain, with cod-liver oil, with coca wine, with pancreatin, with hypophosphites, etc., in tuberculosis and other diseases.—(*Practical Dietetics.* By W. Gilman Thompson, M.D.; pages 142 and 143.)

NORTH CAROLINA MEDICAL JOURNAL.

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No. 10.

Original Communications.

REMARKS ON GOITRE WITH REPORT OF CURES.

BY DR. JOSEPH A. WHITE, A. M., M.D., Professor of Ophthalmology and Associate Professor of Otology and Laryngology, University College of Medicine, Richmond, Va.

John Beattie, age 46, a stone cutter by trade; consulted me in December, 1894, about his eyes. I prescribed the needed glasses, and noticed he had a very large goitre which I took to be a fibro-cystic enlargement of the thyroid gland, from a very cursory examination. There were several cysts, one in the right and two in the left lobe of the gland. I asked why he did not have it treated, and his reply was that he had given up; although it was steadily increasing in size. It had begun about fifteen years previous, as far as he could recollect, and for over twelve years had been a marked deformity. He had tried iodine injections, tapping sac with an aspirator, the constant current, and, as he expressed it, the "electric needle."

On June 27, 1895, he returned and asked me what could be done with the goitre, as it was becoming an impediment to respiration because of compression of the windpipe. Having had very satisfactory results with iodide of potassium by cataphoresis in goitrous cases, I commenced treatment with this plan. Up to Wednesday, July 27th, I had used cataphoresis twelve times with some slight diminution of the tumor and improvement to respiration. On July 17th, I opened the central cyst at the bottom, and drained off a quantity of dark brownish muddy fluid, similar to what is seen in ovarian cysts, etc. The sac was washed out until the returning liquid was clear, and a small quantity of iodine injected. The opening was kept free by packing with gauze. For several days, the sac was washed out and packed daily, with considerable improvement. On July 27th, I cut into the left cyst from the top, and passed the knife across and out at the opening made in the lower

part of the central cyst, which was followed by a discharge of the same fluid and venous hemorrhage. Iodine was injected, and a silver drainage wire was inserted, entering one opening and out through the other, and antiseptic gauze packed into the cyst. The next day, he was unable to come to my office, being confined to bed. He was visited twice daily, and the sac was washed out with peroxide of hydrogen and bichloride of mercury. On the 31st, his neck was enormously swollen, especially on the right side—all the lymphatics being involved—and deglutition was almost entirely arrested. I at once cut into the right cyst and drew off a great quantity of fluid. This sac was connected with the others, and a drainage wire with packing, inserted. Every day the sacs were washed out, disinfected and packed. Quinine and stimulants were used internally. On August 4th, his temperature rose to 104° , pulse 126; and on the 5th and 6th, 101° ; and in a few days normal. He was then put on potash which was increased to 60 grs. three times a day. By September, his neck was reduced almost to its normal size. Some little thickening of the parenchyma of the gland remained, although the cyst had entirely disappeared. For this, cataphoresis was continued, and you saw his condition two weeks ago when he presented himself to this Academy. From wearing a 17 inch collar, he was wearing a $14\frac{1}{2}$ inch. The contour of the neck was perfectly natural. The thyroid cartilage was prominent, and, with the exception of the scars of the incision, there was little or no sign of trouble of the thyroid gland.

The above case is an interesting one in the results, and on account of the prominence which the thyroid gland has assumed in medical journals, the last year or so, especially in relation to the use of the extract of the thyroid glands of animals in the treatment of myxedema; although the subject of goitre itself, seems to have received but little attention. I find in looking over the medical journals of the last year or so, that very little is said in relation to this matter; most references to the thyroid gland being in connection with the treatment of myxedema. Goitre, however, whilst receiving but a short chapter in most text-books on surgery, is a subject of considerable importance. We have different troubles of the thyroid gland, such as acute thyroiditis; bronchocele, or goitre of different forms, such as follicular, fibrous, fibro-cystic and cystic; and that peculiar complex of symptoms, known as *exophthalmic goitre*.

I have no doubt that the reason that we only occasionally find writings upon this subject in the regular medical journals, is due to the lack of knowledge of the functions of the thyroid gland, and the difficulty of explaining etiologically, the various changes that take place. Some recent investigations into the functions of the gland by Hurthle, Eulenberg and others, may result in a better understanding of the pathological alterations. Hurthle reports that the colloid substance in the follicles is produced by the protoplasm

in the epithelial cells, and that the secretion of the gland consists in the formation of this colloid substance. It is supposed that pathological change in the gland is due to some deterioration of this normal secretion. Probably some evidence of this is found in the fact that the same treatment, (the use of thyroid extract, for example) decreases the enlarged gland, and improves the bad results which come from the absence of it, such as myxedema. Another corroboration probably, is the well known fact that cretinism is found in connection with both hypertrophy and atrophy of the gland. Eulenberg thinks that the constitutional symptoms of exophthalmic goitre may be the direct toxic effects of absorption into the veins of the increased altered secretion of the follicles, which produces chemical changes in the constitution of the blood. If this theory is correct, the nervous origin of exophthalmic goitre must be discarded. That it is tenable, is shown by the fact that nearly the same symptoms are produced by the artificial introduction of thyroid secretion in excess. But these theories in regard to the etiology of the pathological changes of the thyroid gland are somewhat speculative as yet, and require further investigation and confirmation.

The treatment of troubles of the thyroid has received lately, considerable impetus. We might divide it into Medicinal, Electrical and Operative.

MEDICINAL—The medical treatment is by the internal administration of suggested remedies, such as iodide of potash, fluoric acid, thyroid extract, etc., and locally, by the introduction in the substance of the gland of iodine, iodoform, etc. Everyone is familiar with the iodine treatment. It is the oldest, and has held its ground longer than any other, with varying success. Probably 90 per cent. of follicular and fibro-cystic goitres are reduced in volume by this treatment, but few radical cures are recorded. Garé of Tübingen, reports, however, very great success with the injection of iodoform, one part to seven of oil, and ether. Kocher, of Berne, has used thyroid extract in twelve cases, all of which were improved, some cured. Bruns of Tübingen also tried feeding in twelve cases, with fresh calf thyroid. Four or five cases were cured, and the others, with the exception of three, much improved.

ELECTRICAL.—Under this heading, I would include three methods of using electricity. First, galvanism, by passing the continuous current through the gland, both poles being on the tumor; second by electrolysis, and third, by cataphoresis. With the use of the constant current, I have had little or no experience. It has been suggested for the reduction of the different kinds of glandular enlargements, and has been used with varying success. Electrolysis, I have used in follicular and fibrous goitre. The negative pole is generally passed into the growth, and a current of ten milliamperes is turned on and continued for about five or ten minutes. This can be repeated in from three days to a week, according to the amount of irritation set up; the

strength of the current being increased until we can use as much as forty or fifty millidmperes. Gradual reduction of the growth takes place under this treatment, and a number of cures are recorded as its result. It is of very little service, however, in cystic goitre, because we can't get the effect of the negative pole in the alteration of the tissue of the growth as we do in the more solid tumors. It has been suggested to tap the cyst, wash it out, fill it to distension with chloride of sodium solution, and by this means, receive the full effects. With electrolysis, four or five to a dozen or more sittings are required.

CATAPHORESIS—The third method, that of cataphoresis or the introduction of remedies by the direction of the electric current, has been in my hand a very satisfactory treatment, particularly in follicular goitre. I can record two or three cases in the last eighteen months where I have had the most satisfactory results from the use of iodide of potash by this method. I use, attached to the positive pole, a metal disc which is covered with wet chamois or cotton upon which is packed as much powdered iodide of potash as it will hold. This is covered over with a thin pledget of wet cotton and applied to the growth. The negative pole is held in the hand, or applied to the back of the neck, or between the shoulder blades. I have seen very little notice of this method of treatment. The only case that I know of recorded, was one reported by Dr. McGuire two or three years ago, in the *Virginia Medical Monthly*. In the goitrous enlargement or bronchocele, which one observes in young people, young girls especially, about the time of puberty, I don't know any more satisfactory treatment. It is true that this form of bronchocele occasionally manifests itself unless at the time, or during the period of, menstruation and very frequently gets well of itself. I am not, however, referring to this form, but to those cases of persistent enlargement of the gland, which not only is seen during the menstrual period, but is present more or less all the time until active measures are instituted for its relief. I have seen cases of follicular bronchocele that have become very large in women because no attention was paid to it in the stage where it would swell up and go down as it were, on the theory that it would get well of itself. One of these was very large, and persisted for several years, and was cured by the application of iodide of potash by cataphoresis. This case I have already mentioned, and it is one known to most of you. I am satisfied that further investigation into this method of applying remedies, will show it to be of great value. In regard to operation, I am satisfied that in cutting open the cysts, as I did in the case above recorded, that I was exposing this patient to as great danger as if I had removed part of the gland. This was evidenced by the symptoms that developed.

Partial thyroidectomy, or strumectomy as some call it, is recommended by many authors for follicular and fibrous goitre. Storm of Christiana, has re-

ported quite a number of operations with success. He also advises enucleation of the cyst for cystic goitre.

Morris, in the *Lancet*, January 25, 1895, reports five cases of bronchocele operated on for urgent pressure symptoms, (all the cases being of comparatively short duration) in which he had good results, and he advises removal of the isthmus and as much of the lateral lobes as may be needed to relieve pressure which is followed by atrophy of the rest of the gland.

Brooks reports two cases of partial thyroidectomy followed by success.

Operation has also been suggested and performed by quite a number of authors for exophthalmic goitre on the ground that it is a hyperplasia of the gland structure, and that the nervous symptoms are due to the toxic effects of the altered secretions, and a number of cures are reported. Greenfield's article in the *British Medical Journal*, December 1893, is probably the best of these contributions. All operators, however, have come to one conclusion—that complete removal of the gland is unjustifiable, and that all operations are more or less dangerous, death on the table having resulted in a number of cases from collapse. It is doubtful that any deaths have resulted from hemorrhage, although in some cases the bleeding is hard to control because of the difficulty of applying ligatures to the vessels whose walls are in such a condition that ligatures will tear loose. To arrest the bleeding by packing is not satisfactory and may be dangerous. If proper care is taken in performing the operation, the bleeding arrested as the operation proceeds, and the field kept as aseptic as possible, I believe the operation of partial thyroidectomy would be comparatively safe. Care must also be taken not to injure the recurrent laryngeal nerve. This operation has been successful in a great many instances, but there have been some failures, as is the case with all operations in surgery.

DISCUSSION.

Dr. Chas. N. Shields remarked that up to five or six years ago he had been treating goitre with electrolysis by the labile method—a pole on either side of the tumor. In two cases a cure was permanent. Three-quarters of the cases in girls occur at puberty and as these cases get well anyway, it is doubtful that the cure was the result of electrolysis. For the last four or five years, the doctor has been treating goitre by cataphoresis as described by Dr. White. In three cases, the results were good. In the first case, the neck was reduced one and one-half inches to normal. In the second, there was marked improvement, but reduction was not complete. The third had been treated previously and reduced one and one-half inches. Under Dr. Shields' treatment reduction was permanent. Another case was that of a young Italian affected by goitre for eight years. He had been treated in Italy by injection and electrolysis. The growth was cystic and looked suppurative. Counter-

puncture was done and the tumor washed out every other day with peroxide of hydrogen. It was larger than a hen's egg, but now, there is no perceptible enlargement. Results, as a whole, however, are such as never to make him promise permanent cure.

Dr, Jacob Michaux said that in doing a tracheotomy in a child with diphtheria, he was obliged to go through the isthmus of the thyroid gland; and the amount of hemorrhage ensuing made him fear greatly for the safety of the child.

Dr, W. W. Parker never fails to stop goitre in the formative stage, by a blister applied every ten days.

Dr. J. W. Henson spoke of the operation of opening the deep fascia and stitching it to the integument.

Dr. White, in closing the discussion, stated that he had listened to the remarks with interest; that he had only known the evening before that he was to be called on to open the discussion on goitre; and that he regretted the brevity and necessary incompleteness of his remarks, limited as they were mainly to his own experiences and his recollections of what others had said and written in relation to bronchocele; but that he would try to reply to the gentlemen who had spoken on the subject he had introduced.

In regard to Dr. Michaux's remarks as to the danger from cutting through the isthmus, he had learned from his experience that this was one of the traditions in the profession used to scare timid operators, like the nursery ghost stories to quiet refractory children. He had often, in doing tracheotomy in a hurry, to open the trachea without regarding the isthmus; and whilst he had seen considerable bleeding—which usually stopped on inserting the tube—he had never seen a dangerous hemorrhage. Once he was called at midnight to a man who had been apparently suffocated by the pressure of an enormous goitre, and was obliged to open the trachea by candle-light as quickly as possible. Dr. O'Brien of Alexandria, assisted him on that occasion, and he cut directly through the centre of a fibrous goitre three inches thick, without regard to hemorrhage, until he reached the trachea which was opened; and the man was resuscitated by artificial respiration. Even then the hemorrhage, whilst considerable, was not dangerous in amount.

He was glad to know that Dr. Shields' experience with the cataphoric action of electricity had been favorable, but did not think it necessary to put the remedy on both poles, as the positive pole was the active agent in inducing the remedies into the tissues. He thought also, that Dr. Shields' idea of electrolysis was rather different from the common acceptance of that term, inasmuch as he seemed to confound the passage of the *constant current*, or galvarism, through the growth, with the destructive action of the negative pole introduced directly into the tumor—the term *electrolysis* referring only to the latter.

Dr. Parker's experience with goitre was more favorable than his own; especially in the lucky circumstances that he always saw them just in their incipency when counter-irritation with blisters was sufficient to cure. All the goitres he had ever seen were well developed tumors of long standing when the case applied to him. On one occasion, however, he had seen an enlargement of the thyroid cured by a blister. It was a case of non-suppurative thyroiditis, the only one he ever saw, which developed so rapidly in a very short time as to threaten suffocation. He, at once, applied an ointment of red iodide of mercury and iodide of potash all over the front of the neck, producing an enormous blister and in a few hours, promptly relieving the patient. Meanwhile, he sat by expecting at any time to be obliged to open the trachea.

Dr. Henson was quite right in saying he had seen report of merely opening the deep fascia in goitre, as it was an operation suggested to relieve dyspnoea from pressure of the glands on the trachea, but Dr. White had never seen a case of cure recorded, from this method; although it was quite within the bounds of probability that after relieving the pressure of the fascia upon the gland, atrophy of the gland might have ensued; and, therefore, it is not at all improbable that he had seen a report of a case cured by this operation, although it was performed merely for the relief of suffocative symptoms and not to cure the goitre.

ACUTE COCAINE-POISONING.*

By M. V. BALL, M.D., Philadelphia, Pa.

In presenting this report of a case of acute cocaine-poisoning, I doubt whether I can offer anything new, and yet there are several interesting points to be noted.

The literature on cocaine intoxication, though widely scattered, is, however, quite extensive. Mattison, of Brooklyn, and Germain Sée, of Paris, have each reported, in 1892, two hundred and more cases of poisoning, with twenty deaths. Since then quite a number of deaths have been recorded in medical journals:

The dose at which fatal poisoning has occurred varied within marked limits. In five fatal cases reported by Manheim, the quantity of the alkaloid taken was over 15 grains. In two cases reported by Mattison, death occurred after the hypodermic injection of $\frac{1}{2}$ grain.

Symptoms of poisoning has set in when the drug was administered by the

*Read before Philadelphia Medical Association October 9, 1895.

stomach, when thrown into urethra, nose, ear, rectum, or when injected under skin or into the gums; or when simply rubbed over the surface of the face.

Absorption is very rapid, and in some of the cases reported the operator barely had time to withdraw the needle of his syringe before symptoms of intoxication set in.

The symptoms described in each case differ greatly, and there are all stages, from slight incoherency in speech with dizziness and dilated pupils to excited hallucinatory delirium, thready uncountable pulse, convulsive breathing, or sudden collapse, or marked tetanic spasms.

Cocaine-poisoning exhibits the symptoms of strychnine-poisoning in some cases, in others that of alcohol, and in some a mixture of both.

I will now describe the case in question:

Mrs. C., aged thirty-five years, white, a sufferer for ten years past from rectal stricture, accustomed to use cocaine locally on pledget of cotton in the rectum, being tired of her existence resolved to end her life by swallowing 25 c.cm. (6 drachms) of 5 per cent. solution of cocaine, equal to about 1½ grammes (18½ grains) of the alkaloid.

The dryness in the throat was speedily produced, and in attempting to get up from her couch to ring for the servant she felt dizzy and fell to the floor. A young medical student living in the house, and summoned at once, found her in a raging delirium. She wanted to throw herself from the balcony. She talked loudly, incessantly and incoherently. She was restrained by physical means, and when the student endeavored to give her a hypodermic of morphine she resisted, and would not allow him to do so. He persuaded her to take the tablets by the mouth, and so ½ grain was administered. It was about half an hour after that I saw the patient. She was held down on the bed by her friends, and was gesticulating wildly, yet was able to recognize me as soon as I entered the room, appealing to me for help. I suffered her to be released, when immediately rushing past me she made for the open window to fling herself out. This she was prevented from doing, remarking, as she was led back to her couch, that after all "she wanted to look pretty when she died."

Her pupils were widely dilated, the pulse hardly perceptible and very frequent. The tongue would be protruded spasmodically, and teeth gritted together in a tetanoid manner. She talked incessantly. In a few minutes I was able to gain control over her without using physical restraint; and, though she talked irrationally at times, her delirium was less marked, and she told me that she was not going to get over the effects, nor would she allow me to give her an antidote; in the next breath she would ask me to listen to her singing or recitation. Frequently looking at her hands they appeared dirty to her, and she would rub them. Her tongue was much congested, bluish

anæsthetic. Her throat was very dry; other parts of the body tested superficially gave no indication of anæsthesia.

Respirations were normal. Temperature normal. Pulse, when counted, was 140. She stated that she felt glorious, never so happy before. Wanted to drink champagne, and when it was brought to her forgot that she asked for it. Delusions of persecutions were present to a slight degree, and her most intimate friend was accused of treachery and underhandedness. She was desirous of moving around, wanted to leave the house and visit a place she had not thought of for many years. Gradually a feeling of tiredness supervened, talk became less lively, bodily sensations were now complained of, and especially great thirst, which water or ice had no power to quench. Lemon and vinegar applied to lips were tasted, showing that sense of taste was not entirely absent.

Pulse still very frequent and small. Was able to administer black coffee and lukewarm water, and thus induce free emesis. At this time, which was two hours after the cocaine had been swallowed, the patient was resting quietly, with her pulse stronger, but still rapid. Thirst was extreme, and in attempting to go to bath-room she found her legs almost useless. The urine was passed. Strychnine, grain $\frac{1}{10}$, was administered by mouth, and some champagne was given. Perspiration started on skin, and the former pallid condition of face changed to a slight glow. Four hours after the initial onset the patient was sleeping soundly, and the pulse went down to 100, but was much stronger. Consciousness entirely returned, but no recollection of time and little of previous events, although she remembered when I came in. Next morning she was very weak, her body felt bruised, and her limbs heavy and almost useless. Feces and urine had been passed without trouble. No appetite. Tongue and throat still much parched, and thirst still present. Congestion of tongue was gone, and normal sensations had returned.

A history of a previous overdose was obtained. The alkaloid in dry state was taken by mistake, and an active delirium much worse than the one just recorded occurred. Morphine was administered in large quantities at the time.

Very few cases are on record of recovery from so large a dose as the one taken in this case, although in a case where 22 grains were given by mistake by the mouth patient died almost immediately.

Forty grains have been taken daily by persons habituated to its use. And recovery would probably not have occurred were it not that patient was under the influence of the drug more or less for some time past.

One of the earliest, possibly the first, case of cocaine-poisoning is recorded by H. Ploss, in the *Zeitschrift für Medicin, Chirurgie und Geburtshilfe*, vol. ii., 1863.

Nieman, who was the first to isolate the alkaloid, and gave it the name it now bears, made known his discovery in 1859, but this fact was

known to a certain apothecary, who was experimenting with coca leaves, and who, in 1863, thought he obtained a poison from them as fatal in its effects as strychnine. He took of this extract a considerable quantity with a view of ending his earthly existence, and while waiting for the drug to take effect he joined some friends in a beer hall and indulged in a few mugs of beer; he then retired to his bed and fell into sleep. Some three and a half hours after he took the poison he awakened with severe thirst and dryness in mouth, dizziness in head, and in attempting to walk across the room his legs gave way. He was unconscious then of what occurred until the morning, but from the appearance of his room he must have been rather active. In the morning he felt very weak, and still dry in mouth and thirst.

In the cases of poisoning that I have been able to collect, frequency of pulse, dilation of pupils, convulsive twitchings of face and general convulsions, respiratory muscle spasm, unconsciousness, excited delirium, suppression of urine, and cyanosis are the symptoms most common.

The delirium is to be distinguished from alcoholic delirium from the absence of frightful hallucinations. Hallucinations are rarely present: One, the so-called cocaine-bug, and which occurred in my patient, is believed by Erlenmeyer to be due to disseminated scotoma.

Spots of dirt seen on white surface; as before noted in this patient, the fingers seemed black and dirty.

LeGrain states that the alcoholic tremor is wanting, but it was distinctly present in our case. The thirst and dryness of throat is a distinguishing feature. Otherwise, without a history, they seem very much alike.

Moreno Y. Maiz (*Recherches Chimique et Physiologique sur l. Erythroxylon Coca*, 1868) states that the thoughts are not mixed up as in alcoholic intoxication. The phantasms are brilliant; there is a flow of wit. I have seen in an advanced case of general paresis a similar delirium—a desire to sing and recite, to move about, to express a feeling of happiness. An habitue of cocaine has expressed himself as desiring rather ten years with cocaine than 10,000 centuries without it. The element of grandeur and personal aggrandizement sometimes enters.

Dujardin-Beaumetz, in his *Dictionnaire de Therapeutique Supplement*, 1895, states that the effects of cocaine in toxic doses in warm-blooded animals are similar to strychnine, but in cold-blood animals—the frog, for instance—no convulsions are produced.

It is a curare for the sensitive nerves, exciting the nerve trunks, and rendering the peripheral nerves analgesic.

Francois (*Arch. de Physiologie*, 1892, p. 562) finds it a paralyzing poison, not only on the sensitive fibres, but also on the motor and on the fibres of muscles, as well as the protoplasm of cells.

The frequency of pulse is probably due to paralysis of vagus; the phrenic

is likewise interfered with, causing the respiratory spasms and tetanic arrest in some cases.

In my case there was no interference with the urine. The urine is often suppressed; other secretions, as those of the mammary and submaxillary gland, have been noted as likewise affected by toxic doses.

Maurel thinks that death is due to destruction of leucocytes. Their dead bodies collecting in capillaries and forming embolic processes.

Reclus holds that thrombi form in veins, and when death occurs after an injection under the skin it is due to the penetration of a small vein.

This will hardly account for the deaths happening after the drug has been thrown into the urethra or when swallowed by the mouth.

As to treatment, I cannot offer anything suggestive. Morphine has been looked upon as antagonistic, and has been given in the majority of cases recorded where symptoms of collapse are present early, with tetanic convulsions and cyanosis. Nitrate of amyl is indicated.

Where heart's action is weak, stimulants, strychnine, hypodermatically, alcohol, ammonia, and ether have all been suggested and tried.

The early administration of $\frac{1}{4}$ grain morphine did probably influence the course in the case described, but recovery is often rapid without any treatment.

As the poison is eliminated rapidly by the urine and skin, the free action of these organs is desirable, especially as there is a tendency for them to be less active than usual.

While the dosage of cocaine cannot be said to have any well-defined limits, several clinicians, among them Hänel and Decker, believe that $\frac{1}{4}$ grain, hypodermatically, should be the maximum dose.

DISCUSSION.

DR. THOMAS J. MAYS: I was much pleased to listen to this report of a case of cocaine-poisoning, in fact, I have always been much interested in the toxic effect of cocaine, especially in regard to the question whether cocaine causes convulsions in animals from its influence upon the peripheral or upon the central nervous apparatus. Dujardin Beaumetz says that in the frog cocaine convulsions never occur and that there is a strong analogy between cocaine and curare, one acting upon the sensory and the other upon the motor filaments. In warm-blooded animals all are agreed that convulsions do occur. I think too much stress is laid on the complete absence of convulsions in the frog when poisoned by cocaine, for I have certainly seen general convulsions precede the paralytic stage, although they are of short duration. It has been observed that while small doses of strychnine cause convulsions in frogs, large doses do not—the frog lying on the table just as if he were poisoned by curare or by cocaine. I have performed many experiments in this direction,

but found nothing new so far as the action of cocaine is concerned; indeed the more you experiment with cocaine the more confusing its action seems to become. While small doses produce tetanic symptoms, there is, I believe, a case on record in which sixteen grains were said to have been given without any bad results. Cocaine, like strychnine, theine, and curare, arrests the heart in diastole in the frog, while other alkaloids, delphinin for instance, arrest the heart in systole. It is very strange that cocaine should resemble those alkaloids so greatly in some of its effects and yet differ so much in others.

Selected Papers.

TREATMENT OF WOUNDS OF THE FACE.*

BY JOHN B. ROBERTS, M.D.

Contusions of the face are disfiguring from the swelling and discoloration which they cause. The loose subcutaneous tissue of the eyelids especially permits extensive extravasation of blood after contused wounds in the vicinity of the eyes. The puffy swelling disappears in a day or two, but the cutaneous discoloration lasts for a week or ten days. The skin over the extravasated blood is at first bluish-black, but gradually becomes greenish and then yellowish, before assuming its normal hue.

A similar discoloration of the forehead may be seen when a wound of the scalp has been received, because the extravasated blood gravitates downward into the tissues of the upper part of the face. Subconjunctival ecchymosis, giving a red discoloration to the white sclerotic region of the eye, occurs in blows received upon the eyeball, in rupture of conjunctival vessels from coughing, vomiting, straining at stool, etc., and in fractures of the orbital plate of the frontal bone and of the other bones which take part in the construction of the orbital cavity.

Pressure and cold compresses, employed for a few hours after a contusion has been received, tend to arrest the subcutaneous bleeding, and thereby diminish the consecutive tumefaction and discoloration. Pressure probably does little good after a couple of hours. The cold applications should be discontinued at the end of eight or ten hours; they are likely to interfere with the process of absorption, upon the activity of which the removal of the blood and inflammatory deposits depend.

In cases characterized by great ecchymosis, numerous minute punctures may be made through which the blood is to be squeezed out of the tissues.

*Read before the Philadelphia County Medical October 23, 1895.

Perfect asepsis must be maintained if this means is adopted, in order to avoid the occurrence of suppuration and conspicuous scarring. Solutions of ammonium chlorid (gr. v-x f $\frac{3}{4}$ j), tincture of arnica and similar lotions, used to hasten the absorption of the blood and the return of the skin to its natural color, probably owe their reputation largely to the friction employed in their use. Agnew believed that surgical shock greatly delayed removal of extravasated blood, and advocated in addition to warm and stimulating applications, tonics and ample diet to hasten absorption.

Pugilists at times paint the skin with flesh-colored cosmetics to conceal the black and blue marks due to bruises.

Incised and lacerated wounds must be rendered aseptic by thorough cleansing with soap and water followed by the application of antiseptic solutions. Anesthesia will often be required to enable the surgeon to do his full duty in this respect. The scrubbing-brush must be vigorously used to remove all dirt and septic particles from the raw surfaces. Mercuric chlorid solution of the strength of 1 to 500 or 1 to 1000 is then freely used as a sterilizing wash.

Tissues seemingly devitalized should not be hastily cut away, for the free blood-supply of the face enables its structures to sustain much damage without the induction of gangrene. Heat applied by means of affusions of hot sterilized salt solution or hot antiseptic washes will aid in revivifying damaged skin. The temperature of the lotions should be about 105° F.

The approximation of the wound should be made by sutures employed so as to cause as little scarring as possible. The dressings should be antiseptic and such as will hasten union. Primary union is desired. When sterilization and neat coaptation are evidently impossible, because of the character of the wounds and their multiplicity, very frequent antiseptic irrigation of the surface of the face will wash away discharge and prevent septic accumulations. A saturated boric acid solution or a weak mercuric chlorid lotion (1 3000-5000) is satisfactory. They should be used about every two hours.

When actual loss of skin has occurred and the gap cannot be covered by sliding or transferring flaps, immediate skin grafting by shavings cut from the thigh or arm may be adopted. It is necessary for success that the raw surface be thoroughly sterilized, and bathed with hot and sterile normal salt solution. The skin shavings cut from the thigh with a razor are laid while warm over the denuded surface, in such a manner that their edges overlap. A piece of sterile oiled silk or rubber tissue is laid upon them and a dry gauze dressing applied. I usually cut a few slits in the protective material so that any serum oozing from the wound may find opportunity to escape to the over-lying dry gauze. This keeps the wound surface from being macerated by fluid retained under the protective.

The edges of wounds of the nasal, auricular or tarsal cartilages should be brought together by fine sutures, which may be carried through the cartilage will give sufficient hold for the stitch.

Local emphysema of the cellular tissue of the face may occur when the lachrymal sac is ruptured, or the frontal or maxillary sinus or ethmoid cells opened by fracture. When the air escapes only into the loose tissue of the orbit, protrusion of the eyeball and crepitation, felt on palpation of the ocular region, occur. The deformity from the swelling due to air in the connective tissue needs no treatment. Subcutaneous rupture of the duct of the parotid gland has been caused by blows on the cheek. The saliva may then burrow into the tissues of the face and neck, causing an emphysematous swelling and much deformity. Pressure will probably be the only treatment required in such injuries.

Gunshot wounds often induce great facial deformity, because considerable areas of tissue are carried away by the missile. Much permanent disfigurement may result from displacement of the bones, actual loss of tissue, or cicatricial contraction in these and other injuries. The distortion due to bony lesions must be prevented as far as possible, by actual replacement of fragments. A great amount of power may be required to pry up depressed fragments or alter the relation of bones driven together by the vulnerating force.

The side of the face is greatly deformed by depressed fracture of the zygomatic arch. The depressed portion should be elevated with a lever, introduced through an incision made parallel to the margin of the zygoma.

In extensive osseous injuries, the bones should be accurately adjusted and held in position by chromicized catgut sutures introduced through drill holes. Sterilized bone or ivory pegs may be employed to nail the bony structures together, if sutures are not effective. The pegs will be absorbed if the wound remains aseptic. Teeth knocked out should be washed with an antiseptic solution and replaced in the socket previously sterilized. The adjoining teeth may be utilized as a sort of splint to which the loose teeth may be tied or wired. Keeping the mouth bandaged shut as in fracture of the lower jaw will aid in maintaining immobility until the replanted tooth becomes firm in its bed. This requires a week or two. If teeth are broken off, the pieces should be preserved so that a dentist may replace the crown on its root by pivoting.

Bullet wounds of the face should seldom be probed. Little information is gained with the probe that cannot be obtained without it. Such wounds are usually sterile and the surgeon's object is to obtain prompt union by organization of the moist sterile blood clot within the bullet track. Exploration with the probe is likely to interfere with this method of healing. Extraction of the ball through the opening of entrance is very unlikely to be possible of accomplishment. Most bullets buried in the face are not found. Unless the situation of the buried missile is apparent, it is better surgery to gain primary antiseptic occlusion of the wound with a gauze pad or a guaze and collodion dressing. A minimum deformity from scar is obtained if union

occurs without suppuration. Any indication of redness, swelling or pain, pointing to sepsis. Should be met by immediate opening of the wound. It should then be syringed out thoroughly with hydrogen dioxid solution, followed by mercuric chlorid solution, and dressed in a manner to favor drainage of fluids.

Punctured wounds should be managed by similar occlusive dressings, if made with clean and smooth instruments probably sterile. If the vulnerating instrument was manifestly septic, or if the wound at a later time shows signs of infection, it should be widely opened and sterilized as in those parts of the body where scarring is not objectionable. A properly planned incision will cause less disfigurement than the cicatricial distortion consequent upon a neglected septic wound.

The unburnt powder, imbedded in the skin and subcutaneous tissue by injuries from firearms at close range, leaves permanent blue stains like the blue discolorations obtained in tattooing with black pigments. Coal miners and those injured by pieces of coal often present similar disfigurements. After such injuries the powder or coal dust must immediately be thoroughly removed from the tissues by vigorous scrubbing of the lacerated or burnt surface with soap and hot water and a brush. Anesthesia is usually necessary. Attempts to remove the dust-like particles with forceps will seldom be successful.

When the skin has healed over the imbedded carbon, the discoloration can only be removed by excising the stained area or tediously removing each minute particle. A small circular punch, shaped like the end of a watch key, may be applied over each blue point, or croton oil may be picked into the discolored skin with a needle. In the later case suppuration will probably occur and cause extrusion of the carbon. The minute white scars will be less disfiguring in a white patient than the tattooed marks. I was once asked to remove from the forehead of a Hindu woman the tattooed mark of her caste. I feared that the white scars left by either of these methods would be conspicuous on the smooth brown skin. I told the patient that I would make experimental trial of the various chemic and operative methods for this purpose on her arm before attacking the exposed surface of her face. She, however, did not return for treatment.

The combustive destruction of the imbedded carbon by introducing a red-hot galvano-caustic needle has been proposed for removing blue tattoo marks. I do not know what effect this method would have on mineral pigments, but it seems plausible in cases of powder stains.

Dermatologists employ chemic means to remove intentional tattooing, but the discolorations due to accidental wounds from firearms or coal-mining injuries are probably too deep for the successful application of chemical solvents. Ohmann-Dumesnil says that he has removed the pigmentation in

tattooing by pricking glycerole of papain deeply into the skin. He thinks that the digestive principle of the papain is disseminated about the pigment particles and liberates them from the enveloping tissue; and that the finely divided carbon or metallic pigment is then partly extruded from the surface.

Another method is called Variot's plan. In this a concentrated solution of tannin is pricked or tattooed into the deep layers of the skin at the spot where the discoloration is situated. A stick of silver nitrate is then firmly rubbed into the punctured area. The skin is not wiped off until the little wounds, made by the tattooing needles of the surgeon, show as black points, because of the formation of silver tannate. Inflammation occurs, scabs form and on the removal of the scabs in a couple of weeks the pigmentary stain is gone. A red scar remains for a considerable length of time.

Society Reports.

ROWAN COUNTY MEDICAL SOCIETY.

Meeting Held at Salisbury, October 7, 1895.

President Darrett in the chair. Dr. W. W. McKinzie read an interesting paper on

ANTITOXIN.

Among other things he said: "It is now known that two grand results can be achieved by it: First—Immunity. Second—Curative or healing where the disease already exists. When serum is thrown into the tissues (this is vague, but perhaps tissue will answer) or, better still, into the circulation it neutralizes the poison produced by bacteria, accomplishing this by reason of certain substances which are formed. These substances can be separated and may be found in the blood, also in the milk.

It was therefore at once thought proper not only to use the blood or its serum, but also the milk, for the purpose of producing immunity. This production of immunity could even be demonstrated in test tubes by mixing certain quantities of bacterial poison or products with serum and finding the poison neutralized.

The immunity produced by antitoxin injections takes place immediately after the injections. By increasing the quantity of serum, we can prevent an infection in a severe epidemic. The immunity is not accompanied by any reaction nor by any pathological symptoms. The period of duration is relatively short; the positive time has not yet been demonstrated. Sometimes five cubic centimetres is sufficient to effect a cure. Dr. Aronson has given 50 c.

c. at one time and repeated on the following day. In very violent cases it is necessary to begin with 10 c. c."

Dr. Shimpoch reported a case of phlegminous erysipelas of leg necessitating amputation at the thigh. He was called in consultation with a young doctor who had treated the case for twenty-one days for a spider bite. The cellulitis was so profound and the leg had been so badly mutilated with the knife that the only alternative left was amputation of the thigh, which they did with recovery.

Dr. Shimpoch asked best treatment for enlarged prostate.

Dr. Poole. I would advise the use of fld. ext. saw palmetto with pichi. It has been of great benefit in my hands.

Dr. Whitehead. I would recommend the use of salix ger. If you have not used it, try it.

Dr. Whitehead introduced the subject of nucleine.

Dr. Jones. I have used protonucleine with favorable results. It has been of vast benefit in the treatment of tuberculosis in my own family.

Dr. McKenzie. I have used nucleine in several cases with benefit.

Dr. Gaither. I can report favorably of the use of nucleine so far as I have tried it.

Dr. Jones. In tuberculosis we may search for this or that curative agent, but, Mr. President, I maintain now, as I have all my life, that the only true method of arresting and curing the disease is by neutralization. Sterilize the soil and you arrest the disease.

The subject of the cold bath in typhoid fever was introduced by Dr. Crowell.

Dr. McKenzie. I have not long since returned from the hospital in New York. There you open the door for a suit for malpractice if you do not use the bath.

Dr. Poole. I use the bath when necessary, but in many cases it is not necessary. I regard the bath as I do whiskey and quinine. When there is any malaria in the case I use quinine and when necessary I use whiskey, but in the last few weeks I have treated five cases and I have used neither quinine, whiskey nor the bath and they are all convalescing nicely. Do not understand me as opposing the bath for I have seen many favorable results from its use.

Dr. Crowell. Perhaps I have been more venturesome with the bath than many others, but my results have been good. I have even used the tub with a lady during menstruation. Also with a boy immediately after a severe hemorrhage. Both recovered.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

The Prevention of Tuberculosis.

The relation borne to the spread of tuberculosis by the domestic animals and especially milk and beef cattle, is so well established that it has led to legislative enactment in several States. Not only does the germ lurk in the juicy steak and the savory roast, but even the milk affords him a vehicle, in which to find his way into the human economy. And it has been clearly demonstrated that the germs may be found in the milk, when it is quite certain that it was not contaminated after leaving the udder. Of course these germs may be, and countless myriads of them doubtless are,

taken into the stomachs of men, women and children without doing harm; but it is, nevertheless, one avenue through which man becomes infected, and if possible should be removed. The old methods of determining the presence of tuberculosis in cattle was too uncertain to be of great value, probably more erroneous than correct diagnoses being arrived at. Tuberculin, however, seems to give more certain results, and to have stood the test of time in this particular sphere of usefulness, and it is the accepted test for tuberculosis in cattle at this time among veterinarians. But it is by no means infallible and its failure to cause reaction in a certain case does

not prove positively the absence of the disease. When reaction does occur, however, the probability of the presence of the disease is so great that the animal should be destroyed. Large numbers of cattle have been destroyed as a result of this test, and as the cattle most subject to the disease are the thorough breeds, such as Jerseys-Guernseys, their market value was very high. Especially in the vicinity of the larger cities do the cattle seem to be affected, and near New York whole herds of valuable stock have been sacrificed by their owners, rather than run the risk of carrying the disease to a human being.

Very little interest in this matter has been shown in the South, but we are pleased to see that the State Agricultural Experiment Station has taken hold of the matter. It has published a Bulletin, devoted entirely to this subject, and as it will fall into the hands of non professional folk very largely, it will, we trust, do much good in educating the people in regard to the contagiousness and preventability of tuberculosis. The tuberculin test has been made on the herd of cattle at the Station, and as a result, a very fine bull was sacrificed.

Large numbers of cattle are annually slaughtered for the markets of the larger towns of the State, and we believe that in not one of them is any municipal inspection ever made of the cattle ante or post mortem. The Experiment Station is moving in the right direction and has set an example that should be followed. Towns should have ordinances restricting the selling of fresh meats to regularly licensed butchers, at established mar-

ket houses, and providing for one or more abattoirs, where, alone, cattle may be slaughtered. These abattoirs should be under the control of the municipal government, and be inspected weekly or oftener as the case might require. The cattle brought for slaughter should have applied the tuberculin test, and should not be admitted to the pens provided for healthy animals unless they fail to react to the tuberculin.

But while the prevention of tuberculosis among cattle supplying food for men would eliminate one source of contagion, by far the most fruitful source would still remain. Man himself is man's worst enemy as far as the spread of tuberculosis is concerned. The beef from a perfectly healthy animal may be hung in a market-place and still, if the butcher is a victim of tuberculosis, the beef may become infected. If tubercular patients frequent the market and expectorate the germs upon the floor to become dry and wafted through the air, the beef is more than likely to become infected. It is those susceptible persons who are daily associated with others afflicted with the disease among whom the greatest number of cases occur. Isolate those who have the disease, or devise some way in which all the germs which emanate from them will be destroyed and the other sources of contagion will, in our opinion, be found to bear but a small proportion of the responsibility for the great prevalence of the disease. Tuberculosis, which Dr. Battle, of the State Board of Health, estimates destroys some 4,000 of the inhabitants of our State each year,

must be placed in the same category with other contagious and infectious diseases, and be under the control of the Health authorities, and subject to the laws of quarantine and disinfection, if much is to be accomplished in the way of restricting its ravages. In other words, the bacillus tuberculosis must not be allowed to be at liberty, or he will surely find a victim.

How far isolation should be carried is a delicate question, for the disease is long continued, and it would be a great hardship on the unfortunate sufferers to be shut out from friends and the pleasures of life until death or recovery removed the danger to their fellow men. In fact, we hardly believe that the public would submit to it, even when they recognized that it was for their own protection. One thing can be done, however, which

would effect a certain degree of isolation, and offer to the sufferers all the chance possible for their recovery. Many of these cases go on from bad to worse, and become more and more dangerous as sources of contagion, to finally die, when they might have been cured and saved to their friends and the State by proper treatment at the proper time. Sanitaria could be established by the State in different sections which might be proven to offer the best climatic conditions, and placed under efficient management. Few persons, knowing that they had contracted the disease, would hesitate to place themselves in one of these institutions, and while it would result in the cure of many who, under the conditions that now exist would die, a tremendous source of infection would be removed from the community at large.

Abstracts.

ON THE CLINICAL VALUE OF EHRLICH'S "DIAZO"-REACTION. (*Ettles Medical Times and Hospital Gazette*.) After an examination of two hundred and forty-three specimens of urine, the author concludes that it is found in the urine of a certain number of apparently healthy individuals, two out of eighty-five cases. It is found invariably in typhoid fever and pneumonia. It is found very frequently in pleurisy, twelve out of thirteen cases; in measles, eight out of sixteen cases; and in intestinal obstruction, one out of two cases. It is found fre-

quently in peritonitis, two out of five cases; in suppurative inflammation, four out of sixteen cases; in erysipelas, three out of seven cases; and in phthisis, five out of twenty-one cases. It is occasionally found in rachitis, three out of fourteen cases, and in diabetes mellitus, two out of seventeen cases. It seems to be absent in malignant and chronic, non-tuberculous, visceral lesions. When taken in connection with other symptoms it has a diagnostic importance. Its presence would turn the balance of opinion in favor of a case being mea-

sles instead of rötheln. Where we are suspicious of typhoid fever its presence would still further incline us to that view, and it would help differentiate tuberculous phthisis from other chronic, pulmonary diseases. These results agree with Nissen's deductions.—*Intern'l Med. Mag.*

SUCCESSFUL REMOVAL OF A LARGE TUMOR FROM THE SPINAL CANAL.—(*Kümmell Beiträge zum Centralblatt für Chirurgie.*) The author relates an interesting case in which a tumor was diagnosed and removed from the spinal canal of a patient, aged forty-seven, with almost entire recovery and relief from pain. The patient had complained, in 1889, of weakness and pain in the limbs which kept gradually increasing, and which resisted all treatment. In May, 1893, a tumor was discovered on the inner surface of the rectum and successfully removed, the patient recovering entirely. This tumor was found to be a sarcoma. The following year the patient again had gradually increasing pain and weakness in the lower extremities, with localized pain beneath the shoulder-blades, followed by a paralysis. On the 6th of November of that year the patient was unable to move at all. The area of anæsthesia extended to the third thoracic vertebra on the left side and to the seventh on the right, with an area of hyperæsthesia extending above. The situation of these areas and the history of their development, together with the history of previous malignant growth, made the diagnosis of a tumor in the spinal canal at about the third thoracic vertebra on

the left side nearly certain, although there were no external evidences of its presence. The patient's condition made operation necessary, and an incision over the third, fourth and fifth vertebræ disclosed an external roughening as an evidence of the presence of disease. The removal of the spinous processes and arches disclosed a crumbling, bleeding tumor within the canal, but not a part of the spinal cord, although the latter was compressed to a marked extent, in sharp contrast to the normal size above and below the tumor. The compressed portion was dark red and markedly cyanotic. The tumor had no connection with the dura, from which it was easily separated, although a portion of the vertebræ had undergone pressure necrosis. The operation of removal of the tumor and cleansing of the wound occupied a little over half an hour. It is of interest to note the change that took place in the compressed portion of the cord during the short time it was under observation; it rapidly regained its normal size, lost the bluish rose-color, and differed only from the normal part of the cord above and below by the inflammatory color remaining in it. The patient sustained the operation well; the pain in the wound was very slight, and the day following the operation reflex convulsions manifested themselves in the lower extremities. There was, however, no marked decrease in the paralytic symptoms for the next fourteen days, although there was a gradual increase in the severity of the convulsions. The great toes of the right and then the left foot were moved on the sixteenth day after

the operation, and the other toes on the succeeding days. A week then elapsed, when the patient moved first the right and then the left foot; other groups of muscles gradually regained their power, until, a month and a half after operation, the patient could raise his legs up from the bed. Sensibility improved gradually with the return of motion, and two months after operation the patient could stand, and later acquired the use of his limbs, so that he could walk for a length of time and climb up and down stairs with the aid of a cane. The only remaining effects of the paralysis are incontinence of urine and difficulty in defecation. The tumor was found to be a sarcoma about the size of an apple. The prognosis for the future of the patient is, therefore, unfavorable so far as return of the disease in some other situation is concerned; but the relief of the symptoms and paralysis make the operation justifiable and of great value to the patient.

THE BEEF TEA DELUSION.—Among the most important achievements of modern physiological chemistry is the reputation of the old theory that beef extracts, beef tea and animal broths are possessed of marked nutritive value. The late Dr. Austin Flint remarked on one occasion that thousands of patients have been starved to death while being fed on these preparations. In an editorial article in *Modern Medicine* the writer expresses the opinion that no greater mistake could be made than to undertake to nourish a patient upon animal extracts, and fortifies his position by

citations from Bunge's *Physiological and Pathological Chemistry* which is regarded as one of our latest and most reliable authorities. According to this work bouillon contains much less than 1 per cent. gelatine—the only article of food which meat yields to boiling water. On the other hand, on preparing meat extracts the quantity of gelatine is reduced as much as possible, because it is in a high degree liable to putrefactive changes. The other constituents of bouillon are products of the oxidations and decompositions which take place in the animal organism. They cannot be regarded as nutritious, because they are no longer capable of yielding any kinetic energy or at most only such a small quantity that it is of no importance whatever. This applies especially to the creatin and creatinin, which, until the most recent times were considered as the source of energy in muscle. It has been demonstrated, however, that these substances are excreted unchanged in the urine, and being neither oxidized nor decomposed they cannot form a source of energy. Human muscle could hardly be influenced by the minute quantity of creatin contained in an ordinary plateful of soup. To conform with the latest teachings of physiological chemistry as set forth in the above citations a meat preparation should therefore consist essentially of the albuminous constituents of meat in a concentrated form, and so prepared as to be readily assimilated. It has been found that these conditions are best realized in a food product composed of albumoses, from which the peptones have been elimin-

ated as completely as possible. Such a preparation is Somatose which has been shown by accurate comparative tests to contain the highest percentage of albuminous matter of all the food products in the market. Somatose is readily digested and completely assimilated and rapidly makes good the waste of tissues in disease producing a marked gain in flesh and strength. Its solubility in all ordinary fluids, tastelessness and odorlessness as well as its freedom from irritating effects on the gastro-intestinal tract are advantages not to be underestimated, especially in the alimentation of capricious invalids and children.

ON THE RELATIONSHIP BETWEEN AUTO-INTOXICATION AND NEURASTHENIA.—Dr. Alvis Pick (*Wiener klinische Rundschau*,) quotes Baumann's discovery of the presence of certain aromatic bodies (indol, scatol, paracresol, phenol, etc.) in the urine of man and some animals, and discusses at length their mode of production in the body. Indol, which he takes as a type, is found in such conditions as intestinal obstruction, atony, paralysis, etc. It is eliminated partly in the fæces and partly in the urine. These bodies act as poisons in the blood and produce auto-intoxication. The manner in which auto-intoxication is modified or prevented is next discussed, stress being laid on the anti-putrefactive properties of the HCl in the gastric juice. The biliary and pancreatic juices also have a preventive property, so also have the fatty acids, resulting from splitting up of the carbohydrates. If these

national safeguards fail, blood poisoning results. Uræmia is possibly a form of auto-intoxication. Possibly this may result from an excess of normal urinary constituents, but Van Noor-deen states that uræmic poisons do not exist in the normal constituents, "but that, primarily from reaction upon the tissue in retention, opportunity is given for the production of poisonous substances from natural metabolic products."

The author next discusses the *modus operandi* of certain articles of food (shell-fish, strawberries, etc.) on some persons as poisons. There is reflex action, but this is the path of morbid action, not its cause. There must be (1) individual predisposition; (2) poison introduced into the blood from (a) improper ingesta (decomposing sausage, fish, etc.), or (b) it may originate in the intestine from the combined action of putrefaction and certain micro-organisms. Similar symptoms may arise from such drugs as antipyrin, iodoform, etc. In these cases the skin is often affected (erythema, urticaria, etc.), but other organs are also affected. Hence, some cases of pernicious anæmia, originating in gastrectasy, may be cured by lavage of the stomach.

Auto-intoxication produces marked nervous phenomena, which may be classified thus:—1. Giddiness; sometimes a true vertigo *a stomacho læso*. 2. Headache; this is common in habitual constipation with urine loaded with indican. 3. Heaviness and sense of pressure on head. 4. Cerebral vomiting due to poisoning of the medulla. 5. Convulsions. The author had a patient who had convul-

sions soon after meals, and was cured by antifermentative treatment. 6. **Psychical disturbances.** Delirium with normal pulse and temperature. Insanity is often associated with obstipation, and is relieved when this is cured. Irritable temper and hypochondriasis are other symptoms. 7. **Peripheral nervous symptoms**—such as tremor. There may be all the symptoms of Basedow's disease, and the author believes that this affection may sometimes originate in auto-intoxication. These symptoms, which may arise singly, in association, or one after the other, afford a picture of true neurasthenia originate in auto-intoxication. These symptoms, which may arise singly, in association, or one after the other, afford a picture of true neurasthenia, and Pick believes that many, though not all, cases of neurasthenia originate in auto-intoxication.

The author refers to the most frequently alleged causes of auto-intoxication—*e.g.* over-fatigue, sexual excesses, mental anxiety, etc.; and adds that the disease is more common among indigent than among energetic persons.

He next discusses the pathogeny of auto-intoxication, and says that in medicine it plays a similar rôle to wound-infection in surgery.

In the third article treatment is discussed. Diet is of most importance. Food rich in albumen and carbohydrates should be given, and milk is very useful. Generally a mixed diet

of eggs, flesh, milk, vegetables, and farinaceous food is to be recommended. Therapeutics are directed by etiological considerations. Sluggish gastric movements should be stimulated by massage, electrical abdominal sponging, douching, etc. Internal antisepsis should be aimed at, and calomel (*gr. ss ter die*) is useful in this way. The intestinal tract must be kept clear by purgatives, lavage, massage, etc. Antifermentatives, such as creosote, menthol, guaiacol, etc., are advisable.

MILK BATHS AS A REMEDY.—Since it has become known that milk in a bucket sitting in a sick room will absorb germs, a recent writer (*Medical Press and Circular*) has applied the idea in the treatment of small-pox, fevers, diphtheria, etc., with marked success. The patient is laid on a mattress covered with blankets. He is then packed in a sheet saturated with milk, covering the entire body, in which condition he remains an hour. A warm water bath is then given, after which the surface is dried and the patient is put to bed.

HONEY IN ERYSIPELAS.—Dr. Hayward, of Coopsey, Ill., (*Medical Record*), calls attention to honey as a remedy for erysipelas. It is used locally by spreading on a suitable cloth and applying to the parts. The application is renewed every three or four hours. All cases in which the remedy has been employed entire relief from the pain followed immediately, and convalescence was brought about in three or four days.

Correspondence.

SOME FACTS CONCERNING THE MEDICAL PROFESSION OF NORTH CAROLINA.

To the Editor:

In the beginning of this letter I want it understood that I am making no war against the Medical Profession of the State which composes the State Medical Society, but want to point out a few obstacles, as I see it, that are a great draw-back to the medical profession of the State as well as the people of the State; and I think the power lies within the Society to remedy these evils. The Board of Medical Examiners is very strict on the young graduate of the present day, and I think should be, but that very worthy body seems to overlook the following evils we have to contend with which I think are a great injustice to regular graduates as well as to the people of the State. The first and most worthless of all is the "*Patent Medicine Quacks.*" I have often wondered why such men were allowed to go at large and cheat and defraud the people as they do with their worthless drugs, without any restrictions whatever. One of these "cure all" gentlemen recently came under my observation in an adjoining county, with his kerosene oil liniment, and a few negroes to attract attention with their fiddles, banjos etc., and took out of the peoples' pockets several thousand dollars in actual cash. No doubt some of these people, who patronized this man, are owing their faithful family physician this very day. Is not this an imposition upon the true profession of the

State and the people also? What is the remedy? The enactment of laws by the Legislature to prohibit such, through and by the efforts of the Medical Society as a body, which I am sure will represent the true sentiments of the medical profession as a whole throughout the State.

I don't suppose there is a physician in the State who does not come in contact with the "*old midwife*" with her ignorance and superstitions. What do you suppose she knows about human anatomy? How do you suppose she would treat a transverse or shoulder presentation? How do you suppose she would treat eclampsia or hemorrhage? Does any one believe she can treat or attend an obstetrical case intelligently? *Common sense* teaches us that she can not, then why is it that such characters are allowed to take the life of a poor pregnant woman in their hands when they have not complied with the laws of our State in any way, regarding medicine, and the practice of same? Does it look fair or is it fair to compel regular physicians who hold diplomas as graduates in medicine and who have made all subjects pertaining to medicine a study, to comply with the law in the strictest sense, and allow uneducated midwives to go on with their ignorant practice without any restrictions whatever?

I think all persons who prescribe or practice medicine in any way should be made to comply with the law requiring an examination testing their proficiency in the responsible position in life they have chosen. If ignorant midwives, frauds and quacks

are allowed to impose on suffering humanity, I don't see any justice in imposing an examination upon educated physicians.

I can see no protection at all for the fair sex of our State under the present existing laws. A committee representing the profession of the State can bring about the proper restrictions through our next Legislature with little effort.

I also observe we have some druggists who are trying to act the physician by prescribing for every possible case with which they come in contact. I think this is not only unlawful but a gross injustice to their neighbor physicians by depriving them of their prescribing fee. This also has a tendency to cause the people to lose confidence in the medical men of our country by having such men to prescribe when they are not capable of making a correct diagnosis of the case, and consequently are not capable of prescribing. I've had cases to present themselves to me for treatment after being very much abused with druggist's prescriptions, with the complaint that they had almost lost confidence in doctors, being under treatment without any relief. When inquiry is made we find some drug man has been treating them with some patent medicine or other worthless prescription that bears a *large profit*. No wonder the people lose confidence in "doctors' medicine" when it is not intelligently prescribed. This is not only an injustice to the physician, but an imposition on the people. I have reference only to druggists who are not graduated physicians.

The medical profession of this State are very much imposed upon by a class of people who are able to pay their bills and are too dishonest to do so and there seems to be no law to help us get at such a class. They are not worth their homestead and a judgment against their property is worthless unless they are worth over \$1,500, except to be placed on record at our expense, to remain as long as the party wishes to put it off. I think the following a good illustration of the present situation. Let a physician employ any one to work for him for a specified time, and if the employer does not promptly pay him his wages the employee can lien the property of employer and collect his money, it makes no difference what the employer is worth, so he is worth the debt. On the other hand let some one employ a physician to practice in his family and this employer not be worth over \$1,500, it will be a long time before this physician can get his money if the employer is not honest enough to pay his bill of his own accord. Is not the physician's practice his work? Is it not his labor? Certainly it is, then why can't we have a law to help us get our money from such a class as already mentioned? I think we should have the right to lien property whenever we deem it proper and right to do so just as much as any class of men and until the physician can have such a law to help him in obtaining his compensation from above mentioned class he cannot reach these dishonest people who are imposing on the physicians all over our land. Some one will say he is not a charitable physician; but

I have not forgotten the poor and helpless, and every physician should respond to the calls of such as promptly as to the calls of people of wealth. I do not refer to objects of charity when I appeal for protection against dishonesty and rascality. I think the physician should be the judge as to when charity should be bestowed as he certainly is placed in the closest contact and can become the most familiar with his patients' circumstances of all people, consequently he has every opportunity and means to discriminate between the two classes. Can we hope for

anything better than the present existence of affairs? Not until we present our claims boldly and squarely to the Legislative body of our State, for no one will represent our interests as we can ourselves. I hope this matter will not be neglected or overlooked by the medical fraternity of the State when the Legislature meets again. I am for charity, unity, fraternity and protection in the right. Protection for ourselves and the people.

B. T. BITTING, M.D.,
Mizpah, N. C.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

SECOND HEALTH CONFERENCE.—The second Conference of the State Board of Health was held in the city of Washington, N. C., on the 6th of the present month.

The Conference convened at 10 a. m., in the city hall, and was called to order and its object explained by Dr. Richard H. Lewis, the Secretary of the Board. Dr. John C. Rodman, ex-Mayor of Washington, was elected to preside over the Conference. An address of welcome on behalf of the city was made by Mayor Havens, and by Rev. C. M. Payne, M.D., on behalf of the people.

The sessions were largely attended

by the people of Washington and the neighboring country, who manifested a very encouraging interest in the proceedings. The attendance at the evening session was so great that many were turned away on account of lack of room. There were numerous papers presented on topics of interest to the people, and they elicited considerable and instructive discussion. Among the especially valuable papers were those by Dr. John C. Rodman, on Preventive Medicine; by Dr. Julian M. Baker, on Malarial Diseases in Eastern North Carolina; by Mr. John C. Chase, C.E., on Sanitary Drainage and Disposal of House-

hold Wastes; and by Professor F. P. Venable, on Impurities in Drinking Water.

As at the last Conference, held in Salisbury, the "question-box" proved quite a popular and instructive feature at this meeting. Many who were unwilling to "speak out in meeting" asked for and received information on every day matters, which while quite familiar to physicians, are not well understood by the people generally.

It is a great satisfaction to know that these meetings are proving so great a success in attracting the attention of the people, and it is to be hoped that the State Board will continue them with even greater frequency. Three times a year would not be too often for them.

In the afternoon the visitors were given a carriage ride about the city by the Mayor and the local physicians, which was greatly enjoyed. Numerous places of interest were visited and the guests departed for home highly pleased with the especial courtesy that had been shown them by the good people of Washington.

A correspondent writing from a town of some 2,000 inhabitants on the Carolina Central Railroad, says: "The town is suffering from a curious and rare epidemic which is worthy the attention of the State Board of Health, as it threatens to mar the peace of many families, and so far nothing has been found to check its inroads, and that is a violent irruption of *twins* of all sizes, sexes and colors. There are no less than seventeen pair here now and I will report

again later. Sometimes they appear as boys, the first in the family; sometimes two girls announce themselves as numbers seven and eight; sometimes a boy and a girl greet an old bachelor who has married late in life, and is rather upset at the advent of one and utterly put to confusion by two; sometimes two boys follow close on the heels of a lusty brace of brothers. Much consternation is felt in married circles and great relief is experienced when only one puts in its appearance."

"*B. FOR AHORS.*" A physician of a Nebraska town sends to the Louisville *Med. Monthly* the following prescription, written by an "old-timer," happily retired.

Send this by this Boy

Tinker of Asfetty	- -	1 ounce.
" Campher	- -	1 ounce.
Cappicom	- -	1 ounce.
Lodman	- -	1 ounce.
Mix		
Anknite	- -	10 c.
Cloroforn	- -	1 ounce.

do not think this is spelt wright but you will know what it is it is for ahors.

dock—————M. D.

Old Charity Hospital. The Commissioners of Charities and Correction (New York city) suggest that still another new name be given to Charity Hospital. Not long ago it was changed to City Hospital, and now Island Point Hospital is suggested. There never was any necessity for changing it in the first place, but the Commissioners still believe in unreasonable and radical reforms.—*Med. Record.*

We note that the *Virginia Medical Monthly* will, with the beginning of the next volume, in April 1896, be changed to a semi-monthly and will change its name accordingly. That's

right Brother Edwards, follow in the train of the wide-awake journals. The past is proof that your new venture will prove successful.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

THE ARMY.

From October 17th to October 30, 1895.

The leave of absence granted Maj. Charles B. Byrne, surgeon, is extended three months.

Leave of absence for one month, with permission to apply for an extension of two months, is granted First Lieut. James M. Kennedy, Assistant Surgeon Camp Merritt, Montana.

The extension of leave of absence, on surgeon's certificate of disability, granted Capt. James E. Pilcher, Assistant Surgeon, is still further extended two months on account of sickness.

Arthur, Capt. William H., Assistant Surgeon, is granted leave of absence for one month.

Cabell, Capt. Julian M., Assistant Surgeon, ordered to David's Island, N. Y., for duty, in lieu of reporting to the Surgeon General for duty.

Cronkhite, Maj. Henry M., Surgeon, having been found incapacitated for active service is retired to date from September 17, 1895.

Rafferty, Capt. Ogden, Assistant Surgeon, is relieved from duty, at Benicia Barracks, California, and ordered to Fort Bliss, Texas, for duty relieving Maj. Clarence Ewen, Surgeon.

Ewen, Maj. Clarence, Surgeon, upon being relieved from duty at Fort Bliss,

Texas, will proceed to San Francisco, Cal., and report to the president of the Retiring Board for examination.

Promotion—Medical Department.

Corbusier, Capt. Wm. H., Assistant Surgeon, to be Surgeon with the rank of Major, October 17, 1895, Vice Cronkhite, retired from active service.

Retirement—Medical Department.

Cronkhite, Maj. Henry M., Surgeon, October 17, 1895.

MARINE HOSPITAL SERVICE.

For the sixteen days ending October 31st 1895:

Purviance, George, Surgeon, granted leave of absence for 25 days, October 23rd 1895.

Young, Y. B. Passed Assistant Surgeon, relieved from duty in Laboratory of Burcan, and directed to rejoin his station at Key West, Fla.

Hutton, W. H. H., Surgeon, granted leave of absence for 20 days October 16, 1895.

Sprague, E. K., Assistant Surgeon, to proceed from Key West, Fla., to Key West Quarantine Station, for temporary duty, October 16, 1895.

Prochazka, Emil, Assistant Surgeon, to proceed from Cain, Ill., to Detroit, Mich., for duty October 31, 1895.

Guiteras, G. M., Passed Assistant Surgeon, granted leave of absence for 30 days October 18, 1895.

AMMONOL IN MALARIAL PAROXYSM.

By CYRUS EDSON, M.D., New York.

PRESIDENT BOARD OF PHARMACY, CITY OF NEW YORK.

Many writers have called attention to the unfavorable effects of quinia when administered during the paroxysm of malarial fever. The drug then seems to increase the headache and to have a rather bad effect on the general condition of the patient.

It has been effectually demonstrated that the proper time for quinine administration is during the period of intermission or remission, and no one can deny that quinine is a *sine qua non* in the treatment of malaria when thus used. The treatment of the malarial paroxysm, i. e., the algid and febrile stage of the disease, has not acquired the attention it deserves at the hands of medical men. Usually the patient is packed in heavy blankets and permitted to shake, burn and sweat in succession until the paroxysm wears itself out. Not only is this discomfort unnecessary, but the physician by permitting it loses valuable time and makes subsequent treatment more difficult. Careful, judicious treatment of the paroxysmal stage of malarial fevers will relieve much suffering and very materially aid subsequent treatment.

I propose to outline in detail the treatment of a typical case of intermittent fever, and I will preface my description with the statement that I have followed this treatment in a large number of cases, obtaining such invariable successful results as to lead me to adopt it as a regular routine practice in all cases of malarial fever.

The treatment is commenced during the first chill if possible, by administration of from 5 to 15 grains of ammonol, the dose depending on the age of the patient, a child of ten years being given the minimum dose, and one grain being added for each subsequent year for older persons up to the maximum dose of 15 grains.

The remedy is given in powder form, dry on the tongue, and washed down with a hot toddy of whiskey, rum or gin, sweetened to the taste and not very strong. The amount of the alcoholic liquor should vary from a teaspoonful to two tablespoonfuls in about four or five times the amount of hot water. This quantity should be determined by the age of the patient. The good effect of this dose should be apparent within an hour. The headache disappears as if by magic; in many cases the chill is shortened and the fever and sweat completely aborted. At the expiration of an hour from the time of administration of the first dose, a second dose of the same quantity of ammonol, followed by half the amount of toddy, should be given. Occasionally the second dose may consist of half the quantity of ammonol first given; this if the patient seems so completely relieved as not to require medicine.

My first action after a cessation of the paroxysmal stage is to exhibit a dose of calomel rubbed with soda bi-carb., and the following prescription indicates dosage:

Hydrarg. Chloridi Mite.

Sodæ bi-carb aa. grs. iii. to vj.

M sig. one dose.

In very young children gray powder in dose of three-quarter grains may be best substituted for the calomel. During the stage of intermission I give a dose of six to twelve grains of quinine, preferably in liquid form, i. e., dissolved by aid of sulphuric acid in water, as follows:

R—Quinia Sulph. gr. xij.

Acid Sulph. dil. qs. ft. sol.

Aquæ, - - - 3 i.

M sig. one dose; to be taken after cessation of fever.

In a majority of cases no secondary chill will occur until the seventh or

fourteenth day if no further treatment is given, but to clinch the driven nail, it is necessary to give two or three grains of quinine before meals, followed after eating, three times daily, with Fowler's solution of arsenic, dose, two to six drops, for a week. Ten grains of ammonol should be taken at bed time during this period, and the bowels kept open by the means of a mild saline aperient taken before breakfast in the morning.

The action of ammonol in the malarial types of fever seems peculiarly happy. Its good effect is perhaps largely due to the ammonia it contains. This agent has for a long time been known favorably as a ma-

larial remedy. It unlocks the secretions, stimulates, has a selective action on the liver, and not unlikely is a destroyer of the plasmodium of malaria.

That ammonol is an effective malarial germicide can readily be proved by its action on the disease when given as the sole treatment in cases of it. I find the treatment I have given as most certain, however, and I cannot too highly recommend it.

In cases of remittent fever I follow the same line of treatment, using ammonol during the stage of high fever and quinia during the remission. —*The National Board of Health Magazine.*

Reading Notices.

VIN MARIANI AND THE DISPENSARY LAW.—The Dispensary law in South Carolina has of late been so rigidly enforced that many druggists were afraid to sell even medicinal preparations containing wine as one of the constituent parts. This seriously interfered with the sales of the well-known tonic Vin Mariani throughout South Carolina, and the proprietors of that famous specialty made vigorous representations to the Governor on the subject. As a result of these representations, Vin Mariani has been specially exempted from the workings of the Dispensary law, as is shown by the following letter received by Messrs. Mariani & Co. from Governor Evans:

(Copy.)

STATE OF SOUTH CAROLINA,
EXECUTIVE DEPARTMENT,
OFFICE OF STATE BOARD OF CONTROL.
COLUMBIA, S. C., Oct. 5, 1895.
*Mariani & Co., 52 West Fifteenth
Street, New York:*

DEAR SIRS—In reply to your favor of 30th ult., Governor Evans directs me to say that you have his permission to sell the Vin Mariani, and he

will exempt it from seizure in the State when not sold as a beverage.

Respectfully,

W. W. HARRIS,
Clerk S. B. C.

In response to numerous requests from physicians for Tongaline in some form more pleasing to the taste and more convenient of administration than the liquid, we now prepare Tongaline in tablets, each 6 grain Tongaline tablet contains:

Concentration of fluid tonga, 1 gr. sodium salicylate, 5 grs., cimicifugin salicylate, $\frac{1}{4}$ gr., pilocarpin salicylate, $\frac{1}{800}$ gr., colchicin salicylate, $\frac{1}{1000}$ gr.

All the salicylic acid is made in our own laboratory from the pure oil of wintergreen.

We also make Tongaline and Lithia tablets, tongaline 5 grs., lithium salicylate 1 gr., and tongaline and quinine tablets, tongaline $3\frac{1}{4}$ grs., quinia sulph. $2\frac{1}{4}$ grs.

Samples mailed free to physicians on application.

MELLIER DRUG COMPANY,
St. Louis.

CHRONIC CYSTITIS WITH STRICTURE.—My experience with sanmetto is quite extensive. I could give special cases in which its action was simply astonishing, but in this report I wish to summarize my experience by saying I have given sanmetto a long and thorough trial in a case of chronic cystitis, accompanied with stricture, the result of which warrants me in saying sanmetto is unsurpassed by any other preparation with which I am acquainted. Its effects are prompt and positive.

RACHAEL J. KEMBALL, M.D.
Buffalo, N. Y.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of commercial drug makes it uncertain however. Robinson's Wine Coca we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of cocaine being always determined by careful assay.

RHEUMATISM AND ITS SUCCESSFUL TREATMENT.—Rheumatism, under its many forms and guises is one of the most common diseases that the New England doctor has to treat, and while the simpler forms yield readily to the proper medication, the majority are stubborn and resist all efforts of the practitioner to rout it. The following cases successfully treated with tongaline are, I believe, of sufficient interest to warrant their publication.

The first was one of those distressing cases of muscular rheumatism of the subacute variety in a Mr. D., aged 44, American, laborer, who came to me suffering from great pains in

the muscles of the arm and shoulder. The pain was such as to incapacitate him from pursuing his occupation as a track hand on the New York, New Haven and Hartford Railroad. He commenced using tongaline in teaspoonful doses three times a day and at bed-time. The result was apparent by great improvement in two days and in one week's time the pain had all left him though I continued the administration of the medicine for a week longer in order to make assurance doubly sure. Since his first attack he had one other following a drenching in a rain which occurred about three months after. This treatment brought about the same happy result.

I was called March 3, to see Mr. B., aged 37, Irish, laborer, who I found confined to his bed unable to move for severe pain in the lumber region, affecting all the big muscles of that part.

It was impossible for him to turn over in bed or to help himself in any way. I ordered a big piece of flannel to be spread thickly with equal parts of ichthyol and wool-ola and bound over the back tightly, giving two teaspoonfuls of tongaline every three hours night and day. Improvement took place in twelve hours so he could move his body with comparative ease though a good deal of pain still existed. The improvement continued so rapidly that at the end of the third day he was sitting up and the medicine was ordered to be taken in teaspoonful doses three times a day. A week of this completed the cure and at the end of ten days he returned to his work on the streets where he had been employed before being taken ill.—*Dr. W. C. Wile in New England Medical Monthly.*

NORTH CAROLINA MEDICAL JOURNAL.

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No. II.

Original Communications.

THE LOCAL APPLICATION OF COLD IN ACUTE PNEUMONIA.*

(SECOND COLLECTIVE REPORT.)

BY THOMAS J. MAYS, A.M., M. D., Philadelphia, Pa.

In the *Medical News*† of June 24, 1894, I presented a collection of fifty cases of acute pneumonia which were treated with ice-cold applications to the chest. Since that time, and especially during the early part of the present year, when through the kindness of the medical press I was enabled to extend a general invitation to the profession for reports of pneumonia cases which were similarly treated, I have received 145 additional reports—making a total of 195 cases. To the medical journals which so kindly published my announcement, and to the medical gentlemen who so courteously and generously responded to my appeal, I take pleasure in tendering my warmest thanks, for it is not saying too much that they are rendering vital assistance in a work which will unquestionably serve to rivet the attention of the profession to a most valuable and indispensable measure in the treatment of pneumonia, of which those who have not seen its effects can form no adequate conception. Furthermore, there is no logic more powerful than that which comes from large numbers, and hence I sincerely trust that every medical man who, in addition to that which is recorded here, has had or will have experience with this mode of treatment will send details of same to me for future publication.

Of the 145 cases which are comprised in the present collection only 93 are

*Read before the Philadelphia Academy of Surgery.

† Ice in the Treatment of Acute Pneumonia.

‡ Blanks for the report of cases will be furnished by me on application.

reported with sufficient detail to enable me to tabulate them; close notes of the remainder were either not taken, or were lost after they had been obtained by the observers. Nearly all the cases bear a record of the sex and age of the patient, the highest temperature and greatest frequency of respiration reached during the attack, the number of days intervening between the chill or the beginning of the disease and the day of crisis, or the subsidence of fever; the presence or absence of delirium, the unilateral or bilateral location of the disease, the result in each case, together with remarks, and the names and address of the reporters.

Sex. Among the total number the sex is noted in 143 cases, of which 67 are males and 76 females.

Age. The age is given in 143 cases. The number of cases occurring in each decade is as follows: Below one year (three weeks, six and a half months, and eight months, respectively), 3; between one and ten years, 27; ten and twenty, 34; twenty and thirty, 26; thirty and forty, 29; forty and fifty, 16; fifty and sixty, 2; sixty and seventy, 5; seventy and seventy-five, 1.

Highest range of temperature. This is recorded in 126 cases—48 males and 78 females. The highest temperatures attained in these cases were as follows: In two cases it was 100° ; in two, 101° ; in three, 102° ; in five, $102\frac{1}{2}^{\circ}$; in nineteen, 103° ; in ten, $103\frac{1}{2}^{\circ}$; in thirty-seven, 104° ; in ten, $104\frac{1}{2}^{\circ}$; in twenty-one, 105° ; in six, $105\frac{1}{2}^{\circ}$; in six, 106° ; in one, $106\frac{1}{2}^{\circ}$; and in four, 107° F.

The highest average temperature at different age-periods of 125 cases. Below the age of five years there were 14 cases with an average temperature of 104.68° ; between five and ten years, 13 cases with an average temperature of 103.84° ; between ten and fifteen, 11 cases with an average temperature of 104.36° ; between twenty and twenty-five, 8 cases, and an average temperature of 104.50° ; between twenty-five and thirty, 17 cases, and an average temperature of 103.55° ; between thirty and thirty-five, 8 cases, and an average temperature of 103.68° ; between thirty-five and forty, 17 cases, and an average temperature of 104.12° ; between forty-five and fifty, 5 cases, and an average temperature of 104.20° ; between fifty-five and sixty, 1 case, and a temperature of 104.50° ; between sixty and sixty-five, 3 cases, with an average temperature of 104.16° ; 1 case between sixty and seventy, and 1 between seventy and seventy-five, with a temperature of 103° and 102° , respectively.

The highest respiratory frequency. This is noted in 55 cases, which may be grouped into the following age-periods: 6 below five years; 3 between five and ten; 6 between ten and fifteen; 10 between fifteen and twenty; 3 between twenty and twenty-five; 9 between twenty-five and thirty; 1 at forty; 8 between thirty-five and forty; 3 between forty and forty-five; 3 between forty-five and fifty; 1 each between fifty-five and sixty, sixty and sixty-five, and seventy and seventy-five.

Days of crisis or subsidence of fever. These are noted in 113 cases, and they occurred as follows: In 8 cases at the end of the first day; in 18 at the end of the second day; in 7 at the end of the third day; in 18 at the end of the fourth day; in 16 at the end of the fifth day; in 13 at the end of the sixth day; in 11 at the end of the seventh day; in 6 at the end of the eighth day; in 9 at the end of the ninth day; in 1 at the end of the tenth day; in 3 at the end of the eleventh day; and in three at the end of the twelfth day.

Number of cases of single and double pneumonia. There were 108 cases of single and 31 cases of double pneumonia, or nearly four times as many of the former as of the latter. The average highest temperature of the single pneumonia cases was 104.51° , while that of the double cases was 104.62° . The percentage of deaths among the former was 3.70 and among the latter 6.45.

The mortality. Among the 195 cases there were 7 deaths, 4 males and 3 females, or a mortality rate of 3.58 per cent. The oldest of these was seventy-four and the youngest was sixteen years. Three were double and four were single cases of pneumonia. The highest temperature attained among these cases was 104° and the lowest 102° , or an average of $103\frac{3}{4}$, there being only an average difference of 0.34° between those who died and those who recovered. The personal history of those who died was as follows:

1. Adult, had a chill ten days before he was seen, and died three days after being admitted. When he came to the hospital he was cyanotic, delirious, and had excessive diarrhœa. His pneumonia was double.

2. Aged thirty-seven years, had diarrhœa and delirium tremens, and his condition was complicated with chronic lead-poisoning. His highest temperature was 102° .

3. Aged twenty-eight years an acute exacerbation of chronic pneumonia.

4. Aged twenty-six years, double pneumonia: was admitted four days after the chill. His temperature was 103 degrees and respiration 45; breathing very labored and painful. Died sixteen hours after admission, of apnœa. Post-mortem examination showed chronic phthisis in both apices, a cavity, with chronic consolidation around it, in left apex. The lower lobes of both lungs were hepatized, and the middle lobe of right side was in a state of congestion.

5. Sixteen years old; admitted four days after chill with double pneumonia, at which time she had an offensive diarrhœa, bloody stools, and hæmoptysis, and was cyanosed and in a stupor. Died on the evening of the second day after admission.

6. Aged seventy-four years. Highest temperature 102 degrees. Died on the eighth day. Ice-bags were applied from the first to the third day.

7. Aged forty years, whole of right lung involved. Highest temperature 104 degrees. Ice applied on first and second days. Died on the eighth day.

COMPARISON OF RESULTS. Whatever opinion we may hold in regard to the value of any treatment, it is quite obvious that in the long run the verdict will favor that one which shows the smallest mortality rate. I am well aware that statistics are often unreliable unless they roll up into large figures, yet I believe that the number of cases which I present for your consideration to-night will form a basis on which to rest an opinion of the treatment here advocated; but before drawing any positive conclusion I will briefly inquire into the results which have been obtained by various other forms of treatment of pneumonia. Dr. Osler reports that out of 1012 cases treated in the Montreal General Hospital 20 per cent. died, and that in the Charity Hospital of New Orleans the mortality rate was 20.01 per cent.; of 1000 cases of pneumonia treated in the Massachusetts General Hospital from 1822 to 1889 the death-rate was 25 per cent. Dr. Hartshorne states that the mortality rate from this disease in the Pennsylvania Hospital during the years 1884, 1885, and 1886 was a little more than 31 per cent. Louis treated 107 cases, of which 32, or about 30 per cent., died. Grisolle had a mortality of 16 per cent. in 232 uncomplicated cases. Rasori treated 648 cases of pneumonia with large doses of tartrate of antimony, of which about 22 per cent. died. With the same medicine, Grisolle lost 18.8 per cent. of 154 cases, and Dietl 20.7 per cent. of 106 cases. During a period of sixteen years previous to 1861 Dr. Huss, of Stockholm, treated 2616 cases, with a death-rate of 10.74 per cent. Of 129 cases treated on the restorative plan by Dr. Bennet, of Edinburgh, only four died, giving a mortality of 3.1 per cent. Dr. Hegele, head physician of the Würzburg Hospital, during 1848 and 1849 treated 40 cases with cold water, without a single death.

Now what conclusions are we to draw from a death-rate which varies all the way from 30 per cent. to nothing? Are we to believe that all pneumonics recover under certain methods of treatment, and that a large proportion of them will necessarily die under others? No one would be justified in making quite such a reckless assertion, yet it must be admitted that the truth lies somewhere between these two extremes. But in order to get at something more tangible, let us first find the rate of natural recovery from this disease. What proportion get well under no treatment whatever, and what proportion die under such circumstances? After having ascertained this we will be in a better position to estimate the worth or worthlessness of any treatment. It is very fortunate that this important link has been furnished. In 1844, '45, and '46 Dr. Dietl, a Viennese physician, treated 189 cases of pneumonia practically without medicine, and with a death-rate of 7.4 per cent. From 1847 to 1850 he treated a second series of 750 cases, with a death-rate of 9.2 per cent. That this represents, at least approximately, the rate of natural recovery from pneumonia is also confirmed by the results of pure homœopathic practice, which may be regarded as equivalent to the let-alone or do-nothing

treatment. Thus, out of 94 cases of pneumonia treated in the homœopathic section of Leopoldstadt Hospital in Vienna, 9.57 per cent. died; out of 24 cases of pneumonia treated in the same institution by Drs. Wurmb and Caspar, 12.55 per cent. died; and Dr. Tessier, of Paris, treated 41 cases of pneumonia, homœopathically, with a mortality of 7.3 per cent.

If these figures are reliable, and there is no evidence that they are not, they show that, as a rule, the natural tendency to recovery in pneumonia is about 90 per cent., and that, therefore, any treatment which is not capable of holding the death-rate down to or below 10 per cent. is not only worthless, but actually mischievous. So far as I apprehend this, however, it only applies to an ordinary aggregate of favorable and unfavorable cases of pneumonia, and not to exceptional instances like those which are met in fatal epidemics of pneumonia, or in a large number of successive cases of alcoholic, senile, or latent pneumonia, as may happen in the experience of any medical man with a large public or private practice.

When we come to compare the results of the ice-cold treatment of pneumonia with those which have been obtained from other forms of treatment, it is safe to say that the former are infinitely more satisfactory than the latter. Although Dr. Bennett's figures excel those which are presented in my collection by about one half of one per cent., it must not be forgotten that his results are entirely over-shadowed by Dr. Hegel's 40 cases, which were treated hydropathically without a single death. Moreover, it must not be overlooked that, so far as my knowledge extends, Dr. Bennett's observations have not been duplicated by anyone on the lines laid down by him; while, on the other hand, this is not the case with the cold treatment; its results in my collection have not been secured by a single individual only, but by as many as thirty-four different observers, among whom are a number who have seen a score of cases, and many more a lesser number in succession, without a single death. This of itself speaks volumes in favor of the method here advocated, for it shows that the personal equation of the practitioner cannot enter very largely into the success of the treatment.

Then, again, I express the hope that these statistics will tend to put to rest the mischievous and irrational dogmatism which regards pneumonia as a self-limited disease, like smallpox and scarlatina, and consequently wholly beyond the control and influence of medicine. Not only is this position refuted by the fact that the death-rate in pneumonia when treated by local cold applications is lower than if the disease is allowed to go untreated, but its unsoundness becomes still more apparent when we learn that the cold treatment hastens the appearance of the day of crisis. This is well shown in the following table, which gives in percentages the days of crisis as they occurred in 373 cases of pneumonia taken from the British *Collective Investigation Record*, and in 113 cases of my own collection:

DAY OF CRISIS.	P. C. OF CASES.	
	BRIT.	MAYS.
1		3.5
2	1	12
3	4	5
4	9	13
5	16	19.5
6	14	12.5
7	22.5	11.5
8	14	9
9	7.5	6
10	5.5	3
11	1.5	3.5
12	1	1.5
13	.5	

These figures bring out some very interesting points which seem to demonstrate the remarkable influence which the cold exerts over the pneumonia process. It will be seen that in the British *Collective Investigation Record* there were no crises at the end of the first day, but that in my collection the crisis took place in $3\frac{1}{2}$ per cent. of the cases at the end of that time. In only 1 per cent. of the cases of the British collection did the crisis occur at the end of the second day, while in my own collection the crisis occurred 12 per cent. of the cases at the end of that time. On the third day the crisis took place in nearly an even number in the two collections. The largest number of crises in the former collection occurred on the fifth and seventh days, while in mine the largest number occurred on the second and fifth days. On the second day the crisis had occurred in only 1 per cent. of the cases of the British collection, while in my own collection it had taken place in $15\frac{1}{2}$ per cent. of the cases. On the fifth day the crisis had occurred in 30 per cent. of the cases of the British collection, while in my own collection it had taken place in 53 per cent. of the cases at the end of that time. In this connection I would say that Jürgensen's collection of 721 cases of pneumonia gives practically the same figures in reference to the occurrence of the days of crisis as that which obtains in the British collective report.

Now if these figures have any value, they indicate that cold *has* a marked and decided influence on the pneumonic process, not only in bringing it to a favorable termination, but to materially shorten its course. This abortive power of the ice has been noticed and spoken of by many of the observers in my collection, and I believe that it demonstrates the great value of the remedy more than anything else.

Mode of death in pneumonia, and its therapeutic indications. Now a few words in regard to the tendency toward death in pneumonia. A high fever, high pulse-rate, frequent and difficult respiration, extensive exudation, etc., are universally regarded as critical and serious symptoms and conditions of this disease. On deeper examination I believe, however, that these are mere

superficial manifestations of grave disorder of the nervous system below, and that the gravity and intensity of each attack are universally related to the degree of resistance which is offered by the nervous system against the ingress of the disease. This is corroborated by the common observation that pneumonia is ushered in by intense nervousness, violent headache, active delirium, local muscular spasm, and general convulsions. Lemaire reports a case (*Centralbl. f. Nervenheilkunde*, 1888, vol. ii. p. 680) in which two attacks of pneumonia were preceded each time in the same individual, the first at the age of thirty-two and the second at forty, by genuine epileptic seizure, and this in a person who had not been subject before or afterward to the latter disease. The close affinity between pneumonia and diseases of the nervous system is also shown in the almost constant association of the former affection with cerebro-spinal meningitis, and with other acute diseases of the brain and the upper portion of the spinal cord. That disorder of the nervous system is capable of originating pneumonia is by no means a new doctrine. A few years ago Dr. Hughlings Jackson, in discussing a paper on "Pulmonary Paresis," read by Dr. B. W. Richardson before the London Medical Society, said that he regarded acute pneumonia as a form of herpes zoster of the pneumogastric nerves (*Proceedings London Medical Society*, vol. xi. p. 95). Dr. Fernet, in a paper on "Neuritis of the Pneumogastric Nerves as a Cause of Acute Pneumonia" (*Praktische Heilkunde*, 1879, i. p. 18), expresses the conviction that the so-called fibrinous pneumonia is a herpes of the lungs brought about by disease of the pneumogastric nerves. Professor Baelz, in the course of his lectures in the Tokio University of Japan, teaches that pneumonia is a reflex vasomotor exudation neurosis (*Centralbl. f. klin. Med.*, 1888, p. 888). It is thus seen that this line of thought has occupied some of the foremost men in the medical profession.

From this we learn that one of the most threatening dangers in pneumonia comes from a defective supply of nerve force to the lungs. This is indicated not so much by a great frequency of breathing, as it is by a frequent and laborious respiration. The patient who lies there moaning with and struggling for each breath, and who complains of pain and distress in the gastric region—the evidence of an over-worked diaphragm—must always be regarded with the gravest concern. Here the tendency toward death is pulmonary exhaustion—a condition sometimes found without very marked extension of the exudation process or much fever, and most frequently in the aged or in those whose nervous systems are overworked or exhausted by alcoholic excess, etc. Equal to the danger of the above condition is the extension of the disease in the lungs. When this covers a large area, as in double pneumonia, there is marked interference with the function of breathing, and the patient tends to die for the want of sufficient aerating surface.

The next in importance are hyperpyrexia and a weak heart. It is not necessary to say anything about the detrimental effects of high fever in pneu-

monia. It is also well recognized that, in virtue of its close affiliation with the lungs, a weak and disordered heart is a constant accompaniment of pneumonia.

The therapeutic indications in the management of pneumonia are, therefore, as follows: (1) Suppression and limitation of the process of exudation; (2) Support of the nervous system and particularly of the pulmonary nerve supply; (3) Reduction of fever; and (4) Maintenance of the function of the heart.

Now what part does cold play in filling these indications? It cannot fill them all, but it covers those of greatest importance. First of all it reduces the pyrexia, strengthens the pulse, tones up the heart, diminishes the pain in the chest, alleviates difficulty of breathing, and gives greater general comfort to the patient. It is capable, however, of doing a great deal more. In virtue of its power to stimulate nerve function and to contract small blood-vessels it promotes the pulmonary circulation, relieves stasis, hastens resolution, and disperses the products of exudation. Strychnine in large doses to sustain respiratory and cardiac innervation; concentrated food of the most nourishing character, like fresh beef-juice, milk, brandy, etc., to support the constitution; digitalis to maintain the heart; oxygen by inhalation to relieve the breathing; morphine to produce sleep; ice-cap to the head to diminish restlessness; and strapping of the chest in case of great pleuritic pain, are some of the agents which will fill most of the remaining indications.

DISCUSSION. IN SURGERY—DELAYED UNION IN FRACTURES.*

BY GEORGE A. PETERS, M.B., F.R.C.S. ENG.,

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In assigning as the subject of the "Discussion in Surgery" the question of "Delayed Union in Fractures," your Committee on Papers had in view the fact that while rapid and brilliant advances have recently been made in the more attractive fields of abdominal, pelvic, and brain surgery, our knowledge of the repair of injuries in bones, and the best methods of treatment to bring about such repair in a rapid manner and with a satisfactory result, is little in advance of the times of Pott, Liston, and Syme. It can scarcely be that we have reached the ultimate degree of perfection in the treatment of these cases, because we occasionally—though, fortunately, not frequently—see results following fractures which are not satisfactory, either as regards the appearance of the limb, or as regards its utility, and in a few cases we may fail to get any union of the injured bones whatever. The latter result, viz., non-

*Delivered at the meeting of the Ontario Medical Association. June, 1895.

union, does not occur, according to Hamilton, Liston, Malgaigne, Norris, and other authorities, more than once in five hundred cases. Dennis claims to have seen 10,000 cases in which not one case of non-union ultimately occurred, though several required operation. But cases of the condition now under discussion, viz., delayed union, are much more common. We apply the term "delayed union," then, to those cases in which the fragments of the bone remain unattached to one another several weeks beyond the time usually requisite to bring about perfect restoration of the continuity of the broken bone. Very often without any extraordinary treatment union ultimately takes place in these cases, and they are thus rescued from classification in the deplorable list of ununited fractures; but such a narrow limit marks the boundary between the two classes that, in consideration of the one, we find ourselves necessarily overlapping the domain of the other.

Fortunately for us, and for our patients, in the vast majority of cases union of fractured bones takes place in a perfectly normal manner. But this leads us to enquire into the reason why, in the exceptional cases, a contrary condition prevails. Recent investigations, so far as I am acquainted with them, throw no additional light on the subject, and the causes given in all our textbooks are those to which we must still give our adherence. The limited time at my disposal prevents my dealing with etiology, except as it may be incidentally mentioned in speaking of treatment, but I would beg to draw the attention of the association to the fact that there have been reported cases of delayed union, and even of non-union, of broken bones occurring in young, strong, healthy subjects, without any constitutional taint, where the fragments were in good apposition, and the treatment correct in every particular. Porter, Packard, and others have recorded such cases. In other words, delayed union sometimes occurs in cases in which *a priori* reasoning would lead us to expect rapid and perfect healing. The knowledge of this should make medical men careful not to let fall unguarded remarks in the hearing of patients so suffering, for many of them are only too ready to enter suits for malpractice.

Having in view this fact, and remembering that such apparently trivial and often unavoidable circumstances as the intervention of a fragment of bone, a strand of fascia, or a torn muscle, may determine delay, or non-union, is it any marvel that one is never called upon to treat a fracture presenting any unusual or unfavorable features without seeing in it a possible—even though not probable—source of trouble, chagrin, or vexatious, and perhaps ruinous, litigation?

The ultimate result of any fracture in which, from any cause, constitutional or local, union is delayed must be one of three:

(1) Either spontaneously, or as the result of treatment, osteoplastic activity is at last set up and perfect union takes place, with full restoration of function, and a normal comely appearance,

(2) Union may occur under similar conditions, but with a shortened, bent, or unsightly limb as the result.

(3) Union by bone may refuse to take place, a false joint forms, or fibrous union takes place with greater or less impairment of utility.

THE PREVENTIVE TREATMENT OF DELAYED UNION.

While one cannot doubt that such constitutional dyscrasie as scurvy, syphilis, debility, and anæmia, arising from any cause, have an unfavorable influence over repair in bones, I think it cannot be successfully denied that in the vast majority of cases in which union does not take place kindly there is some distinctly local cause for the perverse condition. Such local causes may be in relation to:

- (1) The nature and extent of the injury.
- (2) Imperfection of apposition of fragments at time of reduction.
- (3) Some failure in the working of the retaining apparatus, or other flaw in the after treatment.

In regard to the nature of the wound nothing perhaps is in itself so conducive to non-union as actual loss of bone substance, as in some gunshot wounds. Apart from this, the chief reason why compound fractures are more unfavorable than simple is that incidentally germs of suppuration will, in all probability, be carried into the wound and set up their baneful action. If it were possible in such cases to prevent suppuration, the mere fact of a wound of the skin communicating with the fracture would not, to any appreciable extent, delay union of the bones.

While it would be presumption on my part to attempt to give a systematic account of the treatment of fractures to this audience, and would be entirely out of place in this paper, yet I find it incumbent upon me to express some opinion upon the setting and general conduct of such cases as from their nature or character are liable to become instances of delayed union.

In passing, I may interject the opinion that when the local conditions are such as to excite the apprehensions of the surgeon as to the ultimate result, he should, where possible, secure his own safety in case of litigation by consultation with a fellow practitioner as to the line of treatment to be adopted, as well as in reference to the prognosis given to the patient. Another advantage of having skilled aid is that an anæsthetic may then be given, if found necessary. And here I beg to enter a plea for the more general use of anæsthesia in the setting of all, except the simplest, cases of fracture. In compound fractures, in fractures where there is great entanglement of the fragments in the soft parts, and where spasmodic muscular contractions are present, the surgeon is greatly hampered in making a diagnosis of the character of the fracture and in bringing the parts into correct apposition by the cries and expostulations of the agonized patient. Under such trying circum-

stances, the surgeon is too apt to content himself with an unsatisfying examination and an imperfect reduction, in the ill-founded hope that extension, or the restraining action of the splints, or the moulding power of the muscles will bring the parts into good apposition when the spasm has passed off.

Under anæsthesia, however, the surgeon can usually satisfy himself as to the character and direction of the fracture; he can tell whether the fragments are or are not in correct relation to one another; and he feels no hesitation in putting the limb below the seat of the fracture through those very extensive movements which are sometimes necessary to disentangle the lower fragment from the muscles or fascia, or, what is still more difficult, to draw the soft parts off the sharp point of the upper fragment, which sometimes pierces muscles, fascia, and even skin.

In compound fractures the surgeon may, if necessary, take advantage of the wound to explore with the surgically clean finger, and, where found necessary, the wound should be enlarged so as to allow room for the manipulations or incisions necessary to extricate the fragments from the soft parts and to bring them properly together.

If facilities are at hand for doing so with strict asepsis, I think it is justifiable to cut down upon the seat of injury in the case of simple fractures, if it be found that perfect reduction cannot be achieved by any manipulative process. I am of opinion that the instances where so-called subcutaneous division of an obstructing band of fascia or muscle is justifiable are extremely few, and certainly, if such band is in the line of important vessels or nerves, an open operation is infinitely preferable, as being safer and more accurate.

The question of wiring, pinning, or securing with screws is an important one, but I think it will be conceded that, if the fragments are once brought into accurate apposition with one another, tendency to redisplacement is not very great, and that a properly fitted splint is sufficient guarantee of permanence in the majority of cases. Of course, in fractures of the olecranon, the patella, and the lower jaw, some metallic restraint in good position is almost an essential in order to get bony union, but in the case of long bones, where the conformation of the part is favorable to the use of splints, any more intimate retentive apparatus is seldom required.

Having set the fracture and applied retentive apparatus, we must now inquire how in any given case the surgeon in charge can ascertain whether the normal processes which result in the welding together of the fragments are going on or not. All are agreed that meddlesome surgery, like meddlesome midwifery, is bad. It certainly is injudicious and unjustifiable to remove the splints at frequent intervals, and test by flexions and rotations the degree of union that has taken place. Undoubtedly great harm may result from such interference. In fact, such meddlesome curiosity has, in itself, frequently been a cause of non-union. On the contrary, it is unwise to set a fracture

once for all at the time of injury, and then never remove the splints until it is expected they may be left off permanently. It is difficult to state in a general way what rule should be followed in regard to this matter. Much will depend on the nature and seat of the injury. To be as definite as the general character of the question will allow, I consider that it is good treatment to loosen the splints and examine the seat of the fracture within the first forty-eight hours. (If there is burning pain in the skin under the splint, over bony prominences, or elsewhere, this should be looked to as soon as complained of, otherwise a slough may occur.) It is true that there will not be much diminution of the initial swelling, and the tenderness will be great at this examination, but muscular spasm will have passed off. Any gross deviation from the normal length or continuity of the bone may be detected, and the necessary readjustment made more easily than at a later period. Throughout the whole course of the treatment thereafter, it appears to me a wise measure to remove the splints every four, five, or six days, according to circumstances, so as to expose the seat of the fracture for a few moments, at least to the sunlight and air, and to subject the skin and muscles to a light friction and massage in order to prevent what has been very aptly called "local scurvy." Now I wish particularly to state that this must be done without permitting any movement whatever of the fragments upon one another, and I would most strongly deprecate any idea of "testing" the degree of union by bending or rotating the limb. Such testing can do no good whatever, it rarely gives any reliable information to the surgeon, and it may be productive of very great harm.

If, while handling the limb, the surgeon feels distinctly a large formation of callus, it is to a certain degree reassuring, but its absence or small amount does not by any means prove that union is not progressing, for we know that the better and closer the apposition of the fragments the less is the amount of callus produced.

I believe, of course, in passive motion, but, if passive motion cannot be done without risking the union of the bones, then I say wait, and take chances on the movement of adjacent joints. Usually, when the bones are firm one can gradually restore the utility of the joints; but if you fail to get union of the bones, what becomes of the joint? You then have that worst of all combinations—a stiff joint with an ununited fracture in its immediate neighborhood.

In the treatment of fractures due regard must be had to the element of time, and the surgeon should devote his whole skill and attention to the proper treatment of the case, and scrupulously avoid all "testing" of the strength of the union until such a length of time has elapsed that he may reasonably expect that union will be perfect. If it should unfortunately happen that union has not taken place, the surgeon will experience a great

disappointment, and the unwelcome news will come as a great shock to the patient, but the former will have nothing to reproach himself for, and the shock to the latter would not have been lessened by two or three weeks of disquieting apprehensions resulting from the suspicion of the unsatisfactory progress of his case that would have been excited by repeated testings.

But there are also some cases in which, even after the full time has been allowed for treatment, and where union is apparently firm, it is found that the callus is soft and yielding, and that it has not become fully ossified. In the case of bones of the upper limb, no ill result may follow the use of a limb in this condition. The moulding power of the muscles, and that admirable adaptive power of nature which tends to the restoration of injured parts to their original form, may serve to keep the limb from warping, or may restore it gradually to its natural shape if it has become bent. But in the lower limb, which has to bear the weight of the body, a very disfiguring degree of bending may take place in a short time. This teaches us that we should make careful note of the shape and length of the limb when the splints are removed, and the patient is allowed a limited use of the limb. The limb should also be inspected a short time after the weight has been put on it, and, if it is found to be yielding, the splints should be reapplied in such a manner that elastic pressure may be used to bring the fragments again into a straight line.

If, however, after the lapse of five, eight, ten, or twelve weeks, depending on the bone affected, the surgeon should find on examination that union has not occurred, what course of action is he to adopt? It is well not to get into a panic in such cases, because, as has been pointed out, union is sometimes delayed a few weeks beyond the usual time without any obvious reason, and then equally without obvious reason reparative action sets in and a satisfactory result ensues. But if the watched-for and longed-for result does not arrive, the surgeon feels that he must do something. Some fifty years ago Sir William Fergusson declared that he would do almost any reasonable thing rather than cut down upon the seat of fracture as White of Manchester had done, and though we are, with good reason, less afraid of making wounds than they were in Fergusson's day, yet the boldest of us will scarcely dare claim that there is no danger in such an operation. In the earlier stages of delayed union, at all events, milder measures may be adopted. Constitutional measures should not be neglected, though I need not enter into details regarding this point.

In regard to local treatment almost any method which is effective in exciting inflammatory action at the seat of fracture will be effectual, provided distinctly that the ends of the bones are in apposition. Perhaps the most effectual and most readily applied measure is by rubbing the ends forcibly together. There, too, I would strongly advise anæsthesia, though some authorities hold that it is not necessary. If the attempt to excite reaction is

made at all, let it be vigorous and energetic. No make-believe rubbing of the ends will be of any service. The limb should be flexed, extended, and circumducted at nearly a right angle to the normal axis of the limb, and these movements should be made with a force and vigor amounting almost to violence. In that way, if the bones were not in apposition before, they may be brought together by wearing away the bands or fibres, or the new tissue that may have formed between the bones.

After such treatment the retentive apparatus must be reapplied, and Thomas recommends tight bandaging above the fracture so as to increase the swelling and congestion at the part. Some recommend plaster of Paris splint, but if the fracture is in such a situation that any other form of splint can be applied in such a way as to secure perfect immobility, while, at the same time, leaving the seat of the fracture exposed to the light and air, that is the form of splint to be recommended. If, however, it is found on moving the bones freely that they do not grate against one another, such manipulations will probably be unproductive of good, and the proper course will be to cut down upon the part and proceed to such cutting measures as will serve to bring the bone surfaces together. Moreover, the seat of the fracture may be in such a situation that violent manipulations might endanger the integrity of adjacent vessels or nerves, as, for example, in the middle third of the humerus, where the musculospiral nerve lies in immediate contact with the bone. Here an open operation is greatly to be preferred. For similar reasons, I think the subcutaneous drilling and irritation of the ends by the methods of Dieffenbach and Drainard are to be condemned. I do not deny that benefit often results from such drillings, but I think they should be done with the ends of the bones exposed by incision. Every surgeon of experience knows the perverse tendency of drills to slip from the object against which one thinks he is directing them, and to plunge blindly into adjacent parts, perhaps with disastrous consequences.

TREATMENT OF CASES OF LONG STANDING, OR SO CALLED NON-UNION.

In cases of long standing it is often difficult to know whether to advise operation or not. Sir W. Fergusson relates a case in which a man had such a useful arm, though it was the subject of a false joint, that he passed a searching examination as a recruit and was accepted for the army, and I have in my mind at the present moment a case in which there is ununited fracture of both bones of the forearm, with such slight impairment of function, that the man is able to earn his living as one of the crew of a steam thresher.

Each case must be decided upon its own merits. Much depends upon the age of the patient, the bone affected, and the utility of the limb. For example, an ununited fracture of the upper end of the fibula may be perfectly

innocuous, and even in case of the humerus there may be almost no impairment of function whatever.

In the endeavor to be as definite as possible, I would say that in the case of a young man, otherwise in good health, with an ununited fracture of the upper extremity, and almost perfect utility of the limb, though I would not *urge* operation, I should be willing to undertake it after fully explaining the risks, dangers, and uncertainties of the results. If the arm were useless, or comparatively so, I should certainly advise the operation, even in a middle-aged or elderly man. In advanced years, however, with fair utility of limb, I should be inclined to refrain from interference.

In the lower limb I think we should be more aggressive, and should always attempt to get bony union by operative procedure. Even here, however, by means of a close-fitting leather or rawhide casing, the limb may often be made to support the body and perform its functions surprisingly well, and cases are recorded in which union ultimately took place after such an appliance had been worn for more than a year. The operative procedure in a case of old-standing is very different from that which is appropriate to a more recent case. In the former any treatment would be inadequate which stopped short of a free open incision with the removal of the false joint, the pointed or rounded ends with closed medullary canal which have resulted from a rarefactive osteitis, or the fibrous bands which remain as the abortive results of the attempt at the formation of callus. It is obvious that such an operation must result in a shortening of the bone. This makes little difference in the humerus, and it can be compensated for in the case of the femur, but, in the case of ununited fracture of one bone of the forearm or leg, it may necessitate the removal of a section of its unbroken companion, so as to make both bones of the same length. This, of course, adds very materially to the gravity of the operation, and must be allowed due weight in the consideration of the advisability of recommending any operation at all. After such operation the bones may be held in position by wiring, or by means of screws. Time will not permit, however, of my going into details as to the mechanical treatment.

In this paper, Mr. President and gentlemen, it will have been observed, perhaps with disfavor, that I have not given any lists of causes or lines of treatment. I have not quoted authorities, though I have consulted them extensively in preparing the paper, I have not brought forward a single new thing; but I have tried to outline in a brief and imperfect way what I consider to be the best way to avoid delayed union in the treatment of fractures, and the measures best adapted to restoration of osteoplastic activity when delay has occurred.—*Canadian Practitioner*.

Society Reports.

PHILADELPHIA ACADEMY OF SURGERY.

STATED MEETING OCTOBER 9, 1895.

DR. THOMAS J. MAYS read a paper on "The Local Application of Cold in Acute Pneumonia. (See page 321.)"

DISCUSSION.

Dr. John T. Carpenter, of Pottsville, being present, was invited to open the discussion; he said: My object in coming here was to hear the views of some of the leaders of the profession, and not to talk myself. It is therefore with great diffidence that I speak, modified somewhat by the fact that I have had considerable experience with cold applications in pneumonia, and entertain decided views as to the value of treatment by this method. It seems to me that the treatment by cold is only one part of a great subject, which is the treatment of such forms of infectious disease as are attended by great depression of the nerve centres, by cold. For the past forty years in which I have practised medicine it has been my fortune to be cast among a great many of these cases—cerebro-spinal fever, typhoid and scarlet fevers, diphtheria, and pneumonias—and in all these cases, even prior to the use of cold in pneumonia, I had fallen into the habit of using hydropathic methods of treatment. Cerebro-spinal meningitis was the first that I so treated. In scarlet fever I always used the cold-water treatment ever since I read an article published in 1839 by Dr. Samuel Jackson, of Northumberland. I also used ice-poultices to the neck in scarlet fever and in diphtheria. It was therefore very easy for me to come to the treatment of pneumonia by ice-cold applications. About four years ago I began to use this method. I limited it to the graver cases, and did not use it in those cases of pneumonia which were manifestly manageable by the ordinary means. In the milder cases I followed Dr. Bennett's plan and allowed them to trust to Nature. I encountered much prejudice in my neighborhood against this method of treating pneumonia, and only used it in grave cases; but in the last four years I have had some twenty-four cases, which I insisted upon treating with this heroic remedy. One of the most interesting of these was that of a miner, a young man, who had a temperature of 104 degrees on the fourth day of the disease, with great nervousness, and he was apparently doomed to die. I was called to see the case in consultation, and after finding that the usual methods had been used, I recommended the ice-bag as the only addition I could make to the management. In two days great improvement was manifested; the respiration improved, the pulse grew stronger, and the temperature was re-

duced. But what struck me most was the disappearance of the physical signs from the chest. Another case was one of typhoid fever in the fourth week, with pneumonia, which presented symptoms of having been badly treated, and apparently had only a short time to live. I applied ice-bags to his chest and in two days later the delirium had passed away, the temperature was reduced, and the patient became convalescent and recovered in a very short time. I have applied this treatment in various other cases with equally good results; but, unfortunately, I have not kept notes, and can only say that out of about twenty-four cases of pneumonia treated in this way I have only lost two; one was an alcoholic subject, a case of chronic fibroid pneumonia with cavities in both lungs, whom I was called to see in an attack of inter-current acute pneumonia, but who died on the next day. The other was a woman, worn out and exhausted, who died on the fifth day, after the pulmonary symptoms and signs had faded away.

In my use of ice in the treatment of pneumonia I have been struck with two things, the first being the rapid disappearance of the physical signs. I have had several cases in which the consolidated lung cleared up so thoroughly after two days that, on listening to the chest, it would have appeared to a new observer that I had made a mistake, if I had not known otherwise I would have said that there had been no pneumonia there. In other cases I have found the consolidated areas disappearing under the ice-treatment, and the crisis coming on much sooner than by any other treatment with which I am acquainted. The second point noticed was the speedy relief to pain and fever. These facts I offer from my personal knowledge in preference to discussing any theory of the mode of action of this valuable therapeutic agent.

DR. F. P. HENRY: With regard to the treatment of pneumonia with ice and cold applications to the chest, I have often treated sthenic cases of pneumonia in this way with decided benefit; but, like Dr. Carpenter, I have not felt it to be necessary to resort to them in all cases. As I arrived late, I am not aware whether Dr. Mays referred to the statistics of Dr. Lees, of England. Dr. Lees claims remarkable success from treating pneumonia with ice to the chest. It was through his reports that I was first induced to employ this method.

DR. A. J. DOWNES: In February last I had a man, seventy-six years of age, with pneumonia, which had commenced with a chill four days previously. I applied ice to his chest, and in two days his temperature was normal, but two days later he died. The facts remain, however, that the symptoms disappeared, the pain was relieved, and the temperature reduced to normal. In a case of acute phthisis, also, in which I ordered ice applications, the progress of the case, which had been very rapid, was checked, and he has been better ever since. The tubercular process which was going on in the upper part of the lower lobe seemed to be perceptibly improved,

I have a suggestion to make in regard to the rubber bags; they should have a drainage-tube attached, so as to carry off the water so that the ice will mould itself better to the side of the chest. I have another suggestion: It is that the rubber bag can be made into a jacket; in this shape it is much easier to keep the ice applied. I had such a jacket made for this patient with phthisis, to be worn with straps over the shoulders and laced up in front like a shoe, which holds the ice in contact with the chest.

In March last I reported four cases of typhoid fever treated by ice, and I have had seven cases more since then, making eleven cases which have had nothing in the way of treatment except ice, with periods of intermission, the longest and most continuous application was fifty-five minutes on and five minutes off, kept up night and day. In two cases there was sloughing; in one I had an ulcer which took a month to heal, and another had one the size of a silver dollar. Some of them were exceedingly bad cases, but there was no delirium after the ice was applied, and there was absence of tympany and diarrhoea.

DR. STAHL: I recall a case of pneumonia treated by this method. After hearing Dr. Mays' paper last spring, I decided to try the treatment by ice. In my service at St. Agnes' Hospital, in thirty-one cases of typhoid fever treated by cold baths, there developed in one case a pleuro-pneumonia. The question came up whether or not to continue the baths; the temperature was then between 105° and 106° . I decided that the baths should not be discontinued on account of the pleurisy and pneumonia. In a few days the consolidation and exudation disappeared, but there still remained some effusion in the pleura. The patient was comfortable while the baths were being given, and everything seemed going on well, when the patient died. The autopsy revealed resolution at the base of the left lung, and some congestion in the right. It also revealed the existence of phthisis, several small cavities being found in the right lung, and the history showed that the patient had suffered from poor health for several months previous to the attack of pneumonia. I mention this case merely to affirm my faith in the treatment of pneumonia by cold, in spite of the fatal result in this case.

THE PRESIDENT: I hold the same opinion as the members of the Society with regard to the use of cold, and particularly the direct application of ice to the chest in pneumonia. I shall only point out one or two matters which have been suggested or which have been touched upon during the discussion. One point is the coincidence between the treatment of cerebro-spinal meningitis by ice, and this treatment of pneumonia which was mentioned by Dr. Carpenter. The other point that occurs to me is the remarkable series of statistics presented by Dr. Mays in these tables which he has presented. I will only point out the difficulty of drawing conclusions as to the results of treatment in pneumonia, even where large numbers of statistics are presented.

From the pathological standpoint, we have in croupous pneumonia a definite series of lesions; but, clinically, we have the most varying general phenomena as well as the most varying local phenomena. So that while we may determine the existence of pneumonia by the physical signs, yet we have the most diverse local and general symptoms in different cases of the disease.

We have pneumonia of the child, and we have a pneumonia of the adult; we have a croupous pneumonia of childhood, and a croupous pneumonia of old age; we have a pneumonia of the drunkard, and a pneumonia of the debauché from exposure during a debauch; there is also the pneumonia as a result of an infectious process. Then we have the pneumonia which constitutes the terminal event in nephritis, in visceral cancer, and so on; and every clinician knows that while on post-mortem table the lesion appears the same, whether involving a greater or less proportion of the lungs, the symptoms of the disease are so diverse that were it not for the post-mortem appearances we should erect a series of diseases upon the clinical symptoms.

As regards treatment, a guarded symptomatic treatment is sufficient to treat successfully a large number of these cases. On the other hand; there are a large number in which a lethal result is a necessity; for instance, in those where the pneumonia constitutes the terminal event. Therefore we recognize some which are essentially curable and others which are incurable. Between these there are a great many varieties, depending upon habits of life, conditions of disease, and so on. Therefore, while we are agreed that in a number of cases the application of ice to the chest renders the course of the disease more favorable and relieves the symptoms, we are obliged to recognize the fact that there are a number of cases—and, I think, a larger proportion than Dr. Mays's statistics would lead us to conclude—in which treatment by ice would not be followed by such favorable results, because if a sufficiently large number be taken there must be a number in which no treatment would be followed by good results. Therefore, I hold that all statistics of pneumonia brought out to show the effects of treatment by any particular method should give details of individual peculiarities in cases and groups of cases, in order to form any conclusion of value. The difference between the mortality-rate of 20 or 30 per cent. and that reported by Dr. Mays is not to be accounted for solely by the fact that applications of ice were used, but by conditions which enter into those cases of pneumonia which do not appear in the tables.

DR. MAYS: I merely wish to say that these statistics are based on 194 cases, and include those which were presented in my former report. There are, I think, only two cases, which on account of lack of time I did not read, in which the ice applications apparently aggravated the condition. In these it was discontinued for about twenty-four hours, and then reapplied with marked benefit. Barring these two cases, I do not think there is a single case in the whole of the 194 cases where a prejudicial effect was produced by the

use of the ice. It is a fact that all observers in this collection agree that the use of the ice was followed by benefit. These records also make a very favorable showing for the treatment when we recall the fact that they are not selected cases, but include all conditions, such as the senile, the infantile, the alcoholic, and the extreme neurotic.

In regard to the phenomenon which Dr. Carpenter has mentioned, viz., the rapid evanescence of the physical signs in the lung under the influence of the ice, and at which he expressed his astonishment, I must say that I was as much astonished as he was in my earlier experience, and of which I spoke in my first paper on this subject about three years ago. In many of these cases I felt that I might have been mistaken in my first diagnosis; but, after experiencing this change so often, I am no longer surprised when I come to examine a lung and find it full of râles in areas where, the day before, it was consolidated and no râles to be heard. Where there was no crepitation before, the air now enters and crepitation and mucous râles are heard, and the lung begins to clear up. This clearing up of the lung I consider one of the most important phases in the ice treatment of pneumonia. I want to thank those who have taken part in this discussion, and I am much gratified at the concurrence of opinion as to the value of the ice treatment.

RECENT SUGGESTIONS IN THERAPEUTICS.

MERCURY IN HEART DISEASE.—William Murry, of Durham, Eng. (*Lancet*, September 28, 1895), is convinced from repeated observation that mercury possesses a value far beyond its supposed alterative action, and that it tells upon the heart itself. Its special benefits are exercised in cases of dilated and hypertrophied heart. By means of it the "thready," weak, rapid, and irregular pulse is made full, soft, regular, and slow, with manifest relief of such symptoms as dyspnœa, pectoral weight and tightness, and sensations of faintness. The "angina sine dolore" is often marvelously relieved and removed by 2 or 3 grains of blue pill three times a day, and the severe forms of "angina pectoris" not unfrequently disappear under its influence. While the nitrites, nitroglycerin, etc., afford temporary relief, this remedy is much more permanent in its effects. "Nor need I say that to give digitalis a fair chance it is absolutely necessary to pave its way by preliminary doses of mercury and to foster its action by repeated doses. Many of the cases where digitalis, etc., fail, or seem to fail by supposed accumulation depend on this, that we are giving the digitalis without the blue pill or calomel. The same is true of iron and digitalis. Mercury should be given until the portal system is drained and a slow, soft, regular, and effectual pulse is produced, when digitalis or strophanthus can be used as cardiac tonics, followed by iron and digitalis." —*Universal Medical Journal*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

MEDICAL EXAMINATION FEES.

An effort is being made by several of the leading life insurance companies to reduce the fees of their medical examiners from \$5 to \$3 for each examination. What the result of this effort will be remains to be seen, but we hope that the members of the regular profession will not permit the insurance companies to dictate the price for their services. These companies are very exacting in their requirements, and very properly so, for on the knowledge and skill of the medical examiner a very great deal depends. They realize that the medical examiner stands between them and the loss of thousands of

dollars, and for this reason they select only such men as can give good testimonials, some companies restricting their appointments to members of the State Societies. It is to the advantage of the agent to secure as many risks as possible. It makes no difference to him whether they be desirable or otherwise, as his commissions come chiefly out of the first assessment, and it is to protect the company from having agents saddle upon them men who, knowing themselves to be unhealthy, are naturally anxious to have insurance, that the companies have established the custom of having all applicants examined by a reputable and skillful physician.

It may turn out, then, that the sav-

ing of two dollars on each examination may be more than equalled by increased losses through the acceptance of unfavorable risks. The loss of one \$2,000 risk will neutralize the savings on a thousand applicants, and it is highly probable that the increased acceptance of favorable risks will exceed 1 in 1,000; for if the best men who make the examinations now refuse to make them for \$3, the companies will have to fall back on the *cheap doctors*. These may be found in all communities, probably, but they are, in nearly every case, without the fold, and their main idea is to make an extra dollar. Whether they will strictly interpret their responsibility to the insurance companies, whose interests it is their duty to protect, will be a matter for the companies to decide.

A lawyer charges from \$10 to \$25 to write a deed for a piece of property, though it may require only a page of legal cap to contain it, and though the property may be worth only \$500 or \$1,000. It is not the labor expended in writing the deed that he charges for, but his knowledge in judging of the soundness of the deed. So it is not the labor expended in making a physical examination that the physician charges \$5 for, but his knowledge in judging of the physical condition of the applicant, whether or not he is a safe risk. At the same time, the labor and time expended in making a careful examination, including urinary examination, is not inconsiderable. And sometimes an applicant has to be seen several times in order to test the permanency of some abnormal condition. But it is not

necessary to make any apology for our charges. It should be sufficient that we place such an estimate on our services, and having set this price we should consider it lowering the dignity of the profession to permit an individual or a corporation to dictate a lower price.

If we submit quietly in this matter like dumb hirelings, and lead them to think that we are glad to get whatever their magnanimous generosity may see fit to throw to us, where will the matter end? Are they not as likely to make a further reduction of one or two dollars? Is there not as much reason in their saying "your services are worth only one dollar" as to say they are worth only three?

The companies are bound to have the better class of physicians for their examiners, not only for their protection against unfavorable risks, but because the people's estimate of the standing of a company would be influenced in some degree by the professional standing of its corps of medical examiners. Let us stand firmly for our rights, then, and maintain our dignity.

At a meeting of the Wilmington Medical Society, held November 18, 1895, a resolution was adopted that the fees for medical examinations for life insurance companies (all being considered life insurance companies that have no features as benevolent societies or brotherhoods) where the policy is for \$1,000 or upward, shall in no case be less than \$5 for each examination. A committee was appointed who drew up and presented to a meeting of the Society, held November 25th, an agreement to the

above effect, which agreement bears the signature of every reputable white physician in the city of Wilmington.

The Secretary was instructed to have this agreement printed over the names of the signers, and to mail a copy to each life insurance agent in the city and to the home office of each life insurance company doing, or that

may hereafter offer to do business in this city.

There seem to be, then, only three conditions between which the companies will have to choose—discontinue business, pay \$5 for their medical examinations, or import a man to make their examinations—which will they choose.

THE SOCIETY TRANSACTIONS.

The Transactions of the State Society for 1895 are out and have been mailed. As usual there are a number of members who have not received a copy. Some of these, we greatly regret to say have been dropped from the list of members, and cannot be reinstated until the next meeting of the Society. A good many, however, are delinquent only two or three years in their dues.

If you have failed to receive a copy

of the transactions, write to the Treasurer of the Society, Dr. M. P. Perry, Macon, N. C., and see where the trouble is. If you are behind only two or three years send him the amount and he will instruct the Secretary to forward your copy. Failure to receive your Transactions is a reminder that you are in danger of suspension if you permit your dues to go unpaid four consecutive years.

Reviews and Book Notices.

The Physicians Visiting List for 1896. Forty-fifth year of its Publication. Philadelphia: P. Blakiston, Son & Co.

This old reliable visiting list will continue to be a favorite with the profession. Its size is convenient for the pocket, being of thin paper with flexible back. The usual convenient

aids to the physician are to be found in the front. The table of doses has been entirely rewritten by Dr. George M. Gould. We note the omission of some of the reading matter contained in the 1895 List. This is done to make room for additional conveniences in the chief part of the list.

The space for the name of the patient has been made larger, a column for the weekly amount and one for ledger page have been added; also a space for special memoranda opposite each name. The lists for 75 and 100 patients will be published in two volumes thus making the book more convenient for the pocket.

The Medical News Visiting List
for 1896, Philadelphia. Lea Brothers & Co., 1895.

This popular list is now ready.

There are no important changes from the list of 1895. The same tables are to be found in the reading pages, chief among these being those of weights and measures, for determining the day of confinement, incompatibles, poisons and their antidotes, ligation of arteries and therapeutic reminders. The list is arranged for thirty patients a week. The different memorandum departments are provided with a thumb index for easy reference.

Abstracts.

GANGRENE OF THE LEG FOLLOWING TYPHOID FEVER.—Quervain (*Centralblatt für innere Medizin*, No. 33, 1895), remarking the rarity of the occurrence of gangrene following typhoid fever, notes the cases so far reported, and to them adds another, a personal observation of his own. The patient was a man aged 25 years, previously healthy, who had had an attack of typhoid fever of moderate severity. As defervescence began, he became affected with severe pain in the right leg, to which were added, in a few days, paleness of the foot and lower part of the leg, diminution of sensibility and temperature; no edema. The pain became very intense and the pulse and bodily temperature increased. There were no symptoms of endocarditis. The popliteal space and below became slightly edematous and very painful and tender, so that an abscess was thought of. Later there was absolute loss of

motion and sensation, cyanotic discoloration, alternating with paler spots, commencing line of demarcation. This later progressed. There then occurred edema of the left foot and leg, great pain, and tenderness along the great vessels to the groin. The thrombosis of the vein quite evident; palpable. Finally, the right leg was amputated above the knee. Despite exacerbations of phlebitis of the left leg, a superficial gangrene of a small part of the skin covering the stump, and a bed-sore the patient made a good recovery. The popliteal artery was loosely filled with a red, rather firm thrombus which reached as far as the middle of the leg, filling many branches of the artery. The popliteal vein was filled with a rather tightly adherent, firm thrombus, also extending to smaller branches. The vessel sheath was slightly edematous and embedded in an intermuscular abscess. The ab-

cess consisted of pus corpuscles and blood, degenerated cells, and numerous typhoid bacilli; no staphylococci nor streptococci. Regarding the causation, he considers three possibilities,—

(1) There may have occurred a deep intra- or inter-muscular abscess (or periarteric or periphlebitic abscess) caused by the typhoid bacillus. Then ensued damage to the vessel walls and arterial and venous thrombi.

(2) There may have occurred a phlebitis caused by the typhoid bacillus; then periphlebitis with abscess, periarteritis, and thrombus.

(3) Or there may have occurred a primary arteritis caused by localization of the typhoid bacillus on or rather in the arterial wall, then arterial thrombus, periphlebitis, phlebitis, abscess.

He is disposed to accept the last as the proper explanation of the process, and thinks he should not speak in this case of a marantic or toxic thrombus, but of a thrombus due to metastasis of the typhoid bacillus.—*University Medical Magazine*.

ABSINTHISM AND ITS DANGERS.—Driving in any part of Paris in the morning about 11:30 o'clock, or in the evening at 6 o'clock, one sees hundreds of French men and women seated at the little tables in front of the *cafés* drinking, and three out of every four are sipping absinthe. This distillation of an herb that grows in some parts of France and Switzerland contains, besides alcohol of 85 per cent., an essential oil which possesses for *absintheurs* a fascination. The liquor when poured out resembles

in color Scotch whiskey, but when a perforated silver spade is put across the top of the glass with a lump of sugar on it, and water allowed to drip slowly through, it assumes an opalescent green color with a taste of anise seed. It is now ready for consumption, which requires from one-half to three-quarters of an hour. The *absinthen* then goes home with an excellent appetite and lies down at night to voluptuous dreams. Next morning he awakes quite well, and the absinthe of the day before acts as a mild aperient. But soon the scene changes, and in a few years or a few months, as the case may be, and as the number of glasses a day has been smaller or larger, we see him a prey to tremblings, epilepsy, dementia, neurasthenia or convulsions, cerebral or spinal congestion, paralysis, etc. For this, one, two, three, or at most four absinthes a day are enough. One of the first actions on the nerve centres is to annul all sexual desire, and it is from this cause—absinthe—that the population of France is decreasing, while suicide, crime, insanity and diseases of the nervous system are increasing. Professor Laborde injected recently, before his class, twenty drops of the essence of absinthe into a guineapig, which died after a series of epileptiform convulsions; during the interval the animal stiffened itself on its four legs, curved its back in *arc de cercle*, and then fell down repeatedly, agitating its forepaws wildly and crying piteously until death ended its suffering in forty-five minutes after the injection.—*Dominion Medical Monthly*—*The Medical Age*.

THE TREATMENT OF ASPHYXIA NEONATORUM.—Prochownick (*Centralblatt für Gynäkologie*, 1894, No. 10) describes a new mode of treatment of asphyxia neonatorum which he proposes as a substitute for Schultze's method. It consists in suspending the child by the feet, the head being lightly supported. If no assistant be available to hold the child's feet, the operator grasps the ankles between the fingers of his left hand. With the right he grasps the chest, the thumbs being in front, and makes six to eight regular compressions; at first expiration. The nose and mouth are freed from any mucus, which allows air to enter with the inspiratory effort. It may be necessary to douch the suspended child with warm water to assist the respiratory efforts.—*University Medical Magazine*.

AN IMPORTANT POINT IN THE EXAMINATION OF SPUTUM.—Much has been written as to different modes of procedure in the microscopical examination of sputum for the bacillus tuberculosis, such referring mostly to certain particular methods of staining and not touching on the point to which I wish to draw attention. The ordinary method, perhaps because of its being the easiest and not requiring special apparatus for its completion, of selecting particles to be mounted in tubercular examination is to select the lenticular cheesy masses contained in the sample, if such be present.

Microscopical examination of stained slide mounts of these masses, if the specimen be tubercular, will usually reveal the organism, but frequently

will not and therein the difficulty lies.

It is a fact that the absence of the tubercle bacillus in a certain sample of sputum does not prove conclusively that it was from a non-tubercular source, for frequently the tubercular organism is absent from the sputum of consumptives for several days at a time, but the failure to find the organism when it is present seems hardly excusable.

If the technique of the operator is what it should be, and we will assume that it is, and if the bacillus tuberculosis is contained in the sample and yet not shown by examination, the error must lie in the only remaining factor, that is, the method by which the portion to be mounted was selected.

The only reliable method of examining sputum for tubercular infection is to select the portion to be mounted in such a manner as to be sure if the organism is contained in the sample it will be revealed in the mount.

This can be accomplished in the following way: As soon as the sample of sputum is received (and physicians should caution their patients to furnish bronchial and not pharyngeal secretion in a well-stoppered bottle), add to the sample about an equal volume of a 3 per cent. solution of sodium hydrate, shake well the mixture, and place one side to allow sedimentation. After a few hours draw from bottom of the bottle by means of a pipette what sediment may be present and centrifugate this sediment for about three minutes. If the bacillus tuberculosis be contained in the mixture, on centrifugation it will go to the bottom and will invari-

ably be present in the first mount from the bottom of the tube.

As to methods of staining there are several good ones, but the one in my experience which gives the most uniform results is that of Liehl-Gabbot for cover glass preparation.—*Wm. G. Bissell, Buffalo Medical Journal.*

THE LIGATURE IN OÖPHORECTOMY.—Penrose (*American Journal of Obstetrics*, August, 1895) in a paper calling attention to some disadvantages which attend the commonly-used method of ligating the pedicle in operations for removal of the uterine appendages. The methods usually employed by most operators, in a routine way, are the Tait-Staffordshire knot and the interlocking or link ligature. The objections to these he writes are: The liability to slip; the difficulty or impossibility in some cases of removing all of the ovary and tube. The fact that the broad ligament is puckered up and made more tense than normal and may for this reason cause subsequent pain and discomfort. An unnecessary amount of tissue is strangulated. He says most operators have seen cases, either in their own experience or in the experience of others, in which the ligature has slipped from the pedicle, either during the operation or some days afterwards. He thinks that this accident, usually unrecognized, is a very common cause of death after oöphorectomy. Tait has referred to a certain number of cases in his own experience in which hematoma occurred in the broad ligament some hours or days after operation. He (Tait) says, "I cannot form any exact estimate of how

many cases of these operative hematoceles I have seen, but it certainly is not less than fifty, and is more likely to be seventy or eighty." Penrose believes that this accident is due to the retraction or slipping of the artery from the embrace of the ligature, while the remaining mass of tissue which forms the pedicle is still retained, and the hemorrhage is, therefore, confined to the broad ligament. He has seen this accident happen before the abdomen has been closed, and has sought for and ligated separately the retracted vessels. Slipping of the ligament he says is due to the form of the mass of tissue which is ligated. The broad ligament is drawn up into a more or less conical shape, all parts converging towards the ligature, and the ligature is really placed at the apex of a cone, from which it may readily slip. The elastic artery, tied when upon the stretch, tends to retract and escape from the embrace of the ligature. The second objection is the difficulty or impossibility of removing all of the ovary and tube; where the broad ligament is tense, as it is often in single women, or if thickened from inflammatory deposit, it is sometimes impossible to bring the tube and ovary through the abdominal incision and to obtain a pedicle which can be ligated so that with safety all of the ovary may be removed. The third objection, the puckering and tension of the broad ligament, is probably of less importance than those just considered. However, he believes that some of the pain which women suffer after oöphorectomy is due to traction and countertraction exerted by different

parts of the broad ligament upon a sensitive cicatrix. The broad ligament is pulled up from different directions and converges to the cicatrix, which becomes the point from which the lines of traction radiate. The fourth objection appeals to the surgical sense. It is always better surgery to ligate the vessel alone than to include with it a mass of surrounding tissue. Penrose believes that the above objections may all be avoided by ligating the distal and the proximal portions of the ovarian arteries with distinct ligatures and then cutting away the tube and ovary. The method of procedure is as follows: The first ligature is passed through the broad ligament near the pelvic wall, securing the proximal portion of the ovarian artery. The second ligature is passed through the broad ligament at the uterine cornu, securing the distal portion of the artery. The second ligature may include the Fallopian tube if there be no disease

of the isthmus, or it may be passed immediately beneath the tube if it be necessary to exsect the tube from the uterine cornu. With ligatures thus placed the tube and ovary may be completely and safely removed. Usually there is no bleeding from the portion of the broad ligament between the ligatures. It is not necessary to place both ligatures before cutting away the ovary and tube. The first ligature may be placed about the proximal portion of the ovarian artery and then the infundibulo-pelvic ligament may be cut, bleeding from the distal end being arrested with forceps. The advantages of this method he believes are: the ligatures are placed about the vessels while in its normal position, and there is no tendency to retraction or slipping. The minimum amount of tissue is included in the ligatures. All ovarian tissue can be removed. There is no traction whatever upon the scar.
—*University Medical Magazine.*

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

MARINE HOSPITAL SERVICE.

For the fifteen days ending November 15, 1895:

Fessenden, C. S. D., Surgeon, ordered to proceed from Salem to Boston, Mass., for physical examination November 14, 1895.

Carmichael, D. A., Passed Assistant Surgeon, relieved from duty at St. Louis, Mo., and directed to proceed to Vineyard Haven, Mass., and assume command of service November 1, 1895.

Brooks, S. D., Passed Assistant Surgeon, relieved from duty at Chicago, Ill., and directed to proceed to St. Louis, Mo., and assume command of service November 5, 1895.

White, J. H., Passed Assistant Surgeon, granted leave of absence for twenty-three days, November 5, 1895.

Perry, T. B., Passed Assistant Surgeon, granted leave of absence for thirty days, November 11, 1895.

Cobb, J. O., Passed Assistant Surgeon, to proceed from Port Towns and to Port Angeles, Wash., as quarantine inspector, November 1, 1895.

Stoner, J. B., Passed Assistant Surgeon, to proceed from Detroit, Mich., to Baltimore, Md., for temporary duty November 1, 1895.

Gardner, C. H., Assistant Surgeon, to proceed from San Francisco, Cal., to Chicago, Ill., for duty November 5, 1895.

Norman, Scaton, Assistant Surgeon, to proceed from Baltimore, Md., to New Orleans, La., for duty November 1, 1895.

Thomas, A. R., Assistant Surgeon, to assume temporary command of service at St. Louis, Mo., November 1, 1895.

Greene, J. B., Assistant Surgeon, to proceed from Vineyard Haven, Mass., to Baltimore, Md., for duty November 1, 1895.

THE NAVY.

For the two weeks ending November 23, 1895.

Owens, T., Surgeon, detached from Naval Station, Port Royal, S. C., and granted three months leave, November, 11, 1895.

Waggener, J. R., Surgeon, detached from the "Independence" and ordered to the Mare Island, Cal., Navy Yard, November 12, 1895.

Bradley, Geo. P., Surgeon, detached from the Mare Island, Cal., Navy Yard and ordered to the "Indiana."

Rothganger, Geo., Passed Assistant Surgeon, detached from Naval Hospital treatment and ordered to the "Independence."

LaMotte, H., Assistant Surgeon, detached from the "Constellation"

November 16, and ordered to the Naval Hospital, Chelsea, Mass., November 18, 1895.

Gardner, J. E., Surgeon, ordered to Port Royal, S. C., Naval Station.

November 19—Medical Director P. S. Wales, ordered to duty as member of the retiring board, Washington, November 25, in addition to his present duties.

November 22—Passed Assistant Surgeon R. P. Crandall, detached from the naval laboratory and ordered to the naval hospital, New York.

Passed Assistant Surgeon Philip Leach, detached from the naval hospital and ordered to the naval laboratory, New York.

THE ARMY.

From November 14, 1895, to November 27, 1895.

Leave of absence for one month, to take effect about December 4, 1895, is hereby granted Maj. George W. Adair, surgeon, Washington Barracks, D. C.

Leave of absence for four months, to take effect about December 10, 1895, is granted Capt. George McCreery, assistant surgeon.

First Lieut. Irving Wallace Rand, assistant surgeon, will report in person without delay to the president of the Army Medical School for the course of instruction prescribed in General Orders No. 78, September 22, 1893, from Adjutant General's office.

Appointments.

To be Assistant Surgeons with the rank of First Lieutenant November 15, 1895.

Thomas Jellis Kirkpatrick, Jr., John Hamilton Stone, Irving Wallace Rand, Powell Conrad Fauntleroy.

Promotions.

Maj. Justus M. Brown, Surgeon, to be Deputy Surgeon General with the rank of Lieutenant Colonel, November 15, 1895.

Capt. Daniel M. Appel, Assistant

Surgeon, to be Surgeon with the rank of Major, November, 15, 1895.

Retirement.

Lieut. Col. John R. Gibson, Deputy Surgeon General November 15, 1895.

Thomas Jellis Kirkpatrick Jr., and John Hamilton Stone, appointed Assistant Surgeon with the rank of First Lieutenant to rank as such from November 1895, and ordered to report to the president of the Army Medical School for instruction.

The leave of absence granted Capt. Eugene L. Swift, Assistant Surgeon, is extended one month, and he is authorized to go beyond sea.

The leave of absence granted Maj. Joseph K. Corson, Surgeon, is extended twenty days on Surgeon certificate of disability.

NECROLOGY.

SOME RECENT DEATHS AMONG THE PHYSICIANS.

Franklin Townsend, Jr., M.D., at Albany, N. Y., October 31.

Thomas F. Young, M.D., at Brooklyn, N. Y., October 26.

H. W. Rand, M.D., at Brooklyn, N. Y.

Richard B. Fruit, M.D., at Hazleton, Pa., November 10.

Joseph W. Brockbank, M.D., at Philadelphia, Pa., November 7.

George F. Jackson, M.D., at New York, October 7.

Dwight Morgan Lee, M.D., at Oxford, N. Y., October 5.

Charles Bartow, M.D., at Astoria, L. I., October 26.

Ross O. Sidney, M.D., at Brooklyn, N. Y., October 31.

John Lloyd Zabriskie, M.D., at Brooklyn, N. Y., November 11.

Robert Battey, M.D., at Rome, Ga., November 8.

Joseph C. Gilbert, M.D., at Philadelphia, October 26.

Joseph D. Schoales, M.D., at Philadelphia, October 24.

Basil Norris, M.D., U. S. A., at San Francisco, November 11.

Richard Lennox, M.D., at Brooklyn, N. Y., November 14.

John A. Thurber, M.D., at New Orleans, November 9.

Benjamin F. D. Adams, M.D., M. M. S. S., at Colorado Springs, Col., October 28.

Dyer Ball Nelson Fish, M.D., M. M. S. S., at Amherst, October 28.

Dr. Hiram Woods has been elected to the Chair of Diseases of the Eye and Ear in the University of Maryland to succeed Dr. J. J. Chisolm.

Pediatrics is the name of a new journal to be devoted to diseases of children which will soon appear under the editorship of Dr. George A. Carpenter, of London. It is owned by Dr. Dillon Brown, and will be published semi-monthly.

The city of New York has appropriated \$5,000 a year for the support of the Pasteur Institute, in that city, conducted by Dr. Paul Gibier.

The State Board of Charities of Massachusetts has announced that the Craig Colony for Epileptics will soon be ready to receive a limited number of public patients, to be apportioned from the various counties of the State. This method of caring for this unfortunate class is probably the most successful, humane and economical, and it is to be hoped that the authorities of this State will study

the system as there carried out, and be influenced to establish a colony in this State. The original outlay need not be great, and the running expenses could be reduced to a minimum by the work of the patients, if under the control of a competent person.

Bellevue Hospital is to have a new system of baths—Turkish, Russian and medicated—to cost \$10,000.

During the months of July, August, September and October, the physicians of Raleigh, N. C., wrote 981 charity prescriptions, for which the city had to pay \$369.42, an average of about 36½ cents each. The city of Wilmington with 7,000 or 8,000 more population, pays 10½ cents each for prescriptions, and the monthly cost is only about \$25. A change in Raleigh's system is evidently in order.

Dr. J. T. J. Battle, of Wadesboro, N. C., writes: Recently I have noticed that some of the Insurance Companies are sending out circulars to their physicians, stating that hereafter the fee for examination of applicants will be \$3.00 instead of \$5.00, the former fee. These companies have their work done very carefully and thoroughly as they should do, and it is well worth the \$5 charged. For one I never expect to charge them less and the object in writing this is to urge the profession to be united and hold out for the original fee.

See editorial in this issue.

At the last meeting of the Tri-State Medical Society (of Iowa, Illinois and Missouri) the following officers were

elected: President: Dr. Robt. H. Babcock, Chicago. First Vice-President: Dr. A. H. Cordier, Kansas City. Second Vice-President: Dr. W. A. Todd, Chariton, Ia. Treasurer: Dr. C. S. Chase, Waterloo, Ia. Secretary: Dr. G. W. Cale, St. Louis.

The next meeting will be held in Chicago the first Tuesday, Wednesday and Thursday, in April, 1896.

QUEER EXPERIENCES BY DOCTORS.

—A doctor of Brenham, Tex., was recently horsewhipped by a young lady because he was so unpleasant.—A doctor living in Amsterdam, Mo., has been threatened with tar and feathers if he doesn't leave the town. This just at the beginning of the cold season.—Two doctors of Paris, Tex., had a fight, characterized by the local press as "bitter." One used a knife; but the other a fence rail. To the latter we should say, "*Ne sutor ultra crepidam.*"—A doctor in Petrona, Ind., was shot by one of his patients, because he, the doctor, would—or would not—(the account is vague) give the patient a hypodermic injection. The gun is sometimes mightier than the hypodermic. — The South-African press advertises that there is a good opening for "a sober, steady, and handsome bachelor doctor" in one of the Transvaal towns. Send photo. This news is likely to cause a flutter among the younger members of the Academy of Medicine.—*Medical Record.*

Read this JOURNAL and mention it in your correspondence with advertisers.

ANALGESIA AND SEDATION.

BY JOHN J. SULLIVAN, M.D.

UNIVERSITY OF THE CITY OF NEW YORK.

On account of the frequency with which pneumonia in late years is accompanied with grippal symptoms, the treatment, to a great extent, has been modified or changed. The essential features in the result desired are a diminution of the pain and a lowering of the temperature. Opinions differ as to whether a reduction of the temperature influences the course of the disease, but a consensus of opinion is that *antipyretic* treatment is distinctly called for in the beginning, and an analgesic at all times, if needed to assuage suffering. *The antipyretic should be antikamnia, and the analgesic is supplied by codeine and antikamnia together.* This is given every three or four hours in tablets containing $4\frac{1}{2}$ grains antikamnia and $\frac{1}{4}$ grain codeine, throughout the period of congestion and consolidation. Where there is great restlessness, this will have a delightful effect.

In the nocturnal pains of syphilis, in the grinding pains which precede labor, and the uterine contractions which often lead to abortion in *tic-douleureux*, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia and dysmenorrhœa, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative.

In the neuroses of the respiratory organs, great relief is afforded by the use of this combination. A paroxysm of asthma is often cut short by a full dose; hay-fever or autumnal catarrh is benefited by its use.

In the harassing cough of phthisis, or in the pain of pleuritis, in the painful sensations accompanying bronchitis when the tubes are dry and ir-

ritable—as they usually are—the blending of codeine and antikamnia will not be found wanting in its action, but will give results that are gratifying to both the patient and the medical attendant. As a producer of sleep it will be found efficacious. This is doubly true when there is great nervous excitement.

In pulmonary diseases this combination is worthy of trial. It is a sedative to the respiratory centers in both acute and chronic disorders of the lungs. Cough in the vast majority of cases is promptly and lastingly decreased and often entirely suppressed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve; this tablet does it, and in addition controls the violent movements accompanying the cough, and which are so distressing.

This combination is the remedy for diabetes and is superior to any other in diminishing the quantity of sugar in the urine, and also in diminishing the quantity of urine itself in diabetes mellitus. The bulimia and polydipsia are lessened by its use, and probably the changes in the nervous system which accompany or are causative of the disease, are arrested or prevented. It also prevents waste. It controls restlessness; it relieves insomnia; it relieves distressing nervous symptoms. It relieves the craving of the stomach, and lessens the frequency of the calls to urinate.

It is not claimed that the combination will cure diabetes mellitus, but there will be, in many cases, arrest of the disease, with prolonged periods of good health, and cure in some cases. 266 West 38th Street, New York City.

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Original Communications.

PREVENTIVE MEDICINE.*

BY JOHN C. RODMAN, M.D., Washington, N. C.

Since the time of Hippocrates who is justly termed the "Father of Medicine" as differentiated from empiricism, for before his era quackery reigned supreme, men have labored with unceasing diligence toward the mitigation of human suffering and the preservation of health and life. But not until a few years ago have they come fully to realise the wealth in that golden adage, "an ounce of prevention is worth a pound of cure," and thereby directed their efforts toward the preservation of life by the prevention of disease. When the public as well as the physicians, fully realize this and understand the principles which underlie preventive medicine, then and not until then, can that ideal in medicine be attained to which every true physician aspires. Then no longer will we read in the daily press of the cholera plague with its thousands of victims, which is even now ravaging and depopulating the Eastern countries; nor of ship-fever (typhus fever), which in times gone by has left ships in mid ocean with their sails flapping mournfully in the wind and not a hand to guide them o'er the perils of the deep.

"With heavy thump, a lifeless lump,
They drop down, one by one."

Men who are now eminent in the medical profession have prophesied that, in the future the duties and labors of physicians will be more preventive than curative of disease, and so, live, active physicians of to-day to be up with the times, should be as well informed on the theory and practice of the prevention of disease as its cure; for it is our duty as physicians, entrusted as we

*Read before the Health Conference at Washington, N. C., November 6, 1895.

are with the welfare of our people, to give to them that knowledge of sanitary science which is requisite to a proper understanding of self-protection and self-preservation.

And ladies and gentlemen, that is why this Honorable Board has seen fit in its wisdom to select Washington as its place of meeting, to teach and impress on us the importance of the prevention of disease, and in the name of the city I thank them, hoping that the seed which they have sown will bear abundant fruit, and when the "Angel of Death" gathers His harvest it will be ripe and ready for the sickle.

What is sanitary science? "It is a science which includes a consideration of all that can be done to promote public health." It is a science of which it is just as important for the public generally as the physician to have a thorough knowledge, as they are the most interested, even though they may not realize it. But as the physicians constitute a part of the public and at this day, quite a large part of it, and because of their more thorough knowledge of sanitary science, which science is essentially the very foundation of their profession, and being philanthropists from the nature of their calling, it behooves them to promulgate their knowledge for the public weal.

Can diseases be prevented? Let us take a birds-eye view of ancient history and glance at *leprosy*, that dread disease which is spoken of so much in the Bible as synonymous with all that is corrupt, foul and loathsome. There was a time when the eastern continent was covered with lepers, there being nineteen thousand leper hospitals in Europe alone. Lepers were compelled to wear a uniform or some special mark of dress, designating them as the "unclean" and were refused entrance in all churches and public places,—cast into "outer darkness" as it were. What a fearful condition! To-day the disease is a very rare one. This condition has been brought about by a better knowledge of sanitary laws, protection of the non-affected by isolation of the affected.

Smallpox. Though few of the younger generation have ever seen cases of this dire malady, yet I venture to say that not one in the sound of my voice but has seen and recognized its ravages by the marks and scars left on the face of some relative, friend or acquaintance, marring forever that countenance made in His own image. This disease, a most fatal one, the mortality rate being in a ratio of one to three or four, has held sway in epidemics and numbered its victims by the thousands.

No age, no condition in life is exempt; from the unborn child to the old man, with the snows of eighty winters upon his head and just tottering this side of the grave, all, all, may be victims. But we should thank God that through the labors of the immortal Jenner, the discoverer of vaccination, who has probably saved more lives than any other man that ever lived and whose name shall be echoed down the annals of time by the thanks of mil-

lions yet to be, all this has changed, and now smallpox is a rare disease and scarcely ever epidemic. A triumph of preventive medicine.

New let us look at a disease with which we are all more familiar.

Typhoid Fever. A disease much more prevalent in North Carolina than many suppose, having been reported by the North Carolina Health Bulletin as occurring in fifty-six counties in the State during the month of August last. The consensus of opinion is, and I think it has been proven beyond all peradventure, that the origin of this disease is from a germ known as the typhoid bacillus, which finds lodgment in the small intestine and there reproduces itself in countless multitudes and passing out with the discharges are scattered to the four corners of the earth unless otherwise willed by some disciple of sanitation. This germ gains entrance to the body in a majority of instances through the stomach, most usually in such vehicles as drinking water and milk, though in some instances it may gain entrance through the lungs by inhalation. Now if this be true and few deny it, viz:—that the germ is the cause of the disease and it has to gain entrance to the body through the channels which I have designated, before producing the disease, then surely the remedy is plain—remove the cause—destroy the germ. To show how this disease may be communicated, let me refer to the often cited Plymouth Pennsylvania epidemic, in which the discharges from one patient, not in the town, contaminating the general water supply (there being no fever in the town at the time) produced a thousand cases and over a hundred deaths. Among the inhabitants of the town a certain portion used water from cisterns and wells and among these not a single case of fever developed, but was confined to those who used water from the general supply, which was contaminated with the bacillus typhosus.

Now if the attendants of this first case had only known a few simple laws of sanitation and carried them out, how many lives might have been saved, how much suffering averted. In a case of typhoid fever it is our duty morally and legally, to disinfect all discharges emanating from the patient by a method prescribed by law, which method it is the duty of the attending physician to carefully explain to the attending friends of the patient and to see that it is faithfully carried out, a failure of which constitutes a misdemeanor.

Again we have another safeguard. No living germ can withstand a moist heat above boiling point for any length of time, therefore if we have any suspicion that our water or milk supply is contaminated, it should be boiled before using, which process effectually removes all danger of infection from that source. Now then I do not mean to say that typhoid fever as yet can be entirely eradicated and swept off the face of the earth but this I do say, that the history of many towns whose mortality statistics have been accurately kept shows that improved systems of sewerage and water supply, together with a better knowledge of sanitary laws by the public, have to a very

marked degree reduced the mortality from this disease by prevention of the same.

There has been quite recently a revolution in the treatment of *Diphtheria*. The old time curative method which gave us a mortality rate of 50 to 60 per cent., has been changed to one which is both preventive and curative with a mortality of from 5 to 20 per cent. By this new method which consists of a hypodermic injection of an agent, "diphtheria anti-toxine," so called, not only do we attempt to cure the disease but to immunize the patient, that is, to prevent the patient from contracting the disease, or after contraction, if seen early enough, to moderate and shorten the course of the attack. So we see that the trend in this most recent discovery is toward the prevention as well as the cure. How valuable this may be in times of epidemic the future only will disclose. After a case occurs, then what most interests us otherwise than the cure of the individual patient, is the limitation of the disease. This is only accomplished by the strict observance of sanitary rules and regulations, and what is said of diphtheria is equally true of *scarlet fever*, viz:—the complete isolation of the patient and disinfection of all discharges.

The contagium of these diseases cling to all articles with great persistency and retains its virulency for a long time. Well do I remember a case illustrating this point related to the class of Bellevue Medical college, by Professor Janeway. A child in a family of several contracted scarlet fever; the patient was promptly isolated and every precaution taken. During its convalescence it played with a toy wool dog. After recovery of the child the family moved to Florida, carrying with them nothing that had been in contact with the child or been in the room during its illness except by mistake, this toy. On their arrival it was given to one of the children to play with, in twenty-four hours the child sickened with scarlet fever and died. After a stay of two months the family moved back to New York and all unsuspectingly carried the little wool dog with them little dreaming of the deadly germ it contained, and again it was used as a play-thing. Thirty-six hours after its exposure another child sickened with scarlet fever and died. After careful inquiry by the attending physician the toy was suspected and promptly assigned to the flames with the result that no more scarlet fever occurred in that household, but alas! too late, the dread destroyer had claimed two more victims

This shows the importance of destroying all things not too valuable that have come in contact with these eminently contagious diseases. If too valuable, then they should be thoroughly disinfected with some powerful germicide. We cannot be too careful in these things, for upon this principle depends the lives of many.

The title which I have chosen for this paper covers such a broad field that I have not gone into details as fully as I might wish, but in conclusion let me

impress upon you that there are certain diseases in the category of human ailments which "Octopus-like," reaches out with its many arms and grasps all grades of society. from the pauper to the millionaire, for if one is effected the other is in danger. Microbes are no respecter of persons. And so we all, both laymen and professional, are bound together by one common tie for the attainment of that grand and glorious object, the preservation of life by the prevention of disease.

DIAGNOSIS AND MEDICAL TREATMENT OF INTESTINAL OBSTRUCTION.*

By R. F. WILLIAMS, M.D., Richmond, Va.

GENERAL SYMPTOMS: In the *chronic* forms of intestinal obstruction, the first symptom noticed, is some disturbance of defecation. Usually, this is constipation which has gradually increased, and which is often accompanied by tenesmus and pain. There may be diarrhoea, with bloody mucus stools, or constipation alternating with diarrhoea produced by irritation of old faecal matter or passive hyperaemia. If there be a change of form in the faeces, they will usually be flat and ribbon like; the appearance of pea-like lumps in the stool, like the faeces of a goat, is not diagnostic of obstruction, as the same occurs in other forms of constipation. There is a gradually increasing meteorism. Peristaltic movements of the gut may be seen through the abdominal wall as this is thin from the general emaciation of the patient, and the gut wall is hypertrophied. Some authors have recommended this as a more or less efficient means of diagnosing the site of the obstruction; but, on account of the mobility of the gut and its frequent change of position, it is of doubtful value for this purpose. Aortic pulsations may sometimes be felt transmitted through the distended gut.

Vomiting is a frequent symptom as the trouble advances, but it is rarely faecal.

Pain, colicky in character, is a usual symptom; although cases are recorded as proceeding without pain until complete occlusion. More or less anaemia and emaciation are present and may be severe in such cases caused by carcinoma and tuberculosis. The chronic form may follow on the subsidence of an acute attack, but it is more common for an acute attack to supervene in the course of the chronic trouble.

*Read before the Richmond Academy of Medicine and Surgery, October 22, 1895.

The symptoms of acute intestinal obstruction are sudden pain in the abdomen, at first colicky but becoming continuous, usually with exacerbations. The abdomen is tender and distended to a great or moderate degree according to the site of the obstruction; but there is no flatulence, and constipation is absolute except in intussusception, and in some instances, when fecal matter below the seat of obstruction may be voided.

Vomiting is a constant symptom, sometimes alternating with eructations. In the beginning of the trouble, the contents of the stomach are first vomited, then bile and later, stercoraceous matter. This is not produced by a reverse peristalsis bringing the contents of the large gut into the stomach, but by putrid decomposition in the small gut, as is shown by the fact that in obstruction of the small gut stercoraceous vomiting occurs and is a more constant symptom in this form than in obstruction of the large gut. The vomiting is caused by stretching of the peritoneum and by irritation of the stomach produced in the presence of abnormal matter which has entered when the pylorus is relaxed by pressure from within the gut.

There are rapidly developing symptoms of collapse. The pulse rapidly increases in frequency and becomes weak; the extremities cool and cyanotic; the eyes and cheeks sunken; the voice weak. The temperature is variable though it usually falls. The tongue is dry and there is great thirst. The urine is scant and high colored and may even be suppressed when the obstruction is high, due, probably, to the constant vomiting and consequent small amount of fluid absorbed. Respiration may be interfered with by the distension and pain. Peristaltic movements may be seen through the abdominal walls; but this is not a constant symptom on account of paresis of the gut wall, thick abdominal walls, etc.

The *diagnosis* of intestinal obstruction is always difficult and cannot be dogmatically given; as it must be made by differences in degree of symptoms for the most part; and perhaps more than in any other condition, is the judgment of the physician called in here.

Diagnosis as to the site of the obstruction:—Abdominal inspection and palpation give indications of the location by the detection of well-defined masses or active peristalsis in the distended coils. Rectal and vaginal examinations should always be made, as by these means, the condition of the pelvic organs can be discovered and often, if the obstruction be low, it can be felt; while, if high, the fingers will find the empty coils depending into the pelvis. Rectal examination with the whole hand is not to be recommended. Obstruction of the small gut gives rise to greater anuria and there is, usually, an increased amount of indican in the urine due to decomposition of albuminous matter, forming indol; while, if the obstruction be in the large intestine, indican is not increased as the albuminous substances are not present there in such quantity.

In obstruction of the small gut, there is greater vomiting which becomes stercoraceous early, and less tympanites, the distension being in the upper part of the abdomen if the duodenum or jejunum is the site of the obstruction, and in the central part, if the ileum be involved. Professor Monti, of Vienna, gives as a diagnostic point pain beginning about the umbilicus and radiating toward the stomach when the duodenum or jejunum is the site; while if the obstruction be lower down, pain begins in the cœcal regions. He also considers the development of tympanitis of diagnostic value if the case be seen early enough.

In obstruction of the large gut, there is greater tympanitis and vomiting comes on more slowly. Tenesmus and the passage of mucus and blood are commoner. For deciding the point of obstruction in the large intestine, rectal examination will give evidence of the involvement of the rectum, and often, of the sigmoid flexure. Inflation with a bellows, or with bicarbonate sodium and tartaric acid is a useful means. Knowing the capacity of the larger gut to be about six quarts, distension of the gut by the injection of known quantities of water, will frequently aid in the diagnosis. For this purpose, only a soft rubber tube should be used on account of the danger by hard one. The patient should be anæsthetized and have his buttocks raised. In both of these last mentioned means care must be used, as cases are on record where such methods have caused rupture. To further aid the diagnosis by this method, auscultation along the course of the large gut should be made as the gurgling sound will give further evidence.

Of the Nature of the Obstruction:—*Hernia* should be excluded by a thorough examination of all possible points for its occurrence. *Strangulation* is rare in the young. The history usually gives evidence of previous abdominal operations, peritonitis or colic. The attack comes on suddenly, fæcal vomiting occurs early; local tenderness is usually absent at first, but comes on later; constipation is absolute; fever may, or may not be present. No tumor can be felt, as a rule.

Intussusception is commonly met with in children, occurring even in young infants. The result is sudden. Pain, at first, is usually paroxysmal, and tenderness is often absent, pressure often giving relief. Fæcal vomiting is not a common symptom. Constipation is not the rule, but if the invagination occur in the small gut, it may exist, when there will usually be more hemorrhage. Usually, there are bloody stools, the amount of blood often reaching a severe degree of hemorrhage. There may even be diarrhœa. Tenesmus is a frequent symptom, especially when the large gut is involved. If the affection be in the large gut, by rectal examination one may often touch the invaginated portion feeling like a softened, patulous cervix. The presence of a sausage-shaped tumor can usually be found by abdominal palpation.

Volvulus occurs oftenest in men of middle and advanced life. The diagnosis

is always difficult, and often laparotomy is the only means of making it. The usual sites are the lower part of the ileum and, most frequently, the sigmoid flexure. The onset is sudden. Pain is at first, intermittent, becoming constant later. Tympanitis is marked, beginning frequently as a circumscribed area in the umbilical and epigastric regions and tending to the left side. Constipation is absolute, and peritonitis appears early. The passage of a soft rubber tube and injection of water, is especially useful for diagnosis in this form of obstruction, though some object that it increases the trouble.

Fæcal Impaction occurs most frequently in women and lunatics. There is always a previous constipation which, as a rule, gradually increases till the point of occlusion is reached; but the occlusion may be sudden. The commonest sites are the cæcum and rectum. Constipation is usually, absolute, but, when the impaction occurs in the rectum, the mass may be channelled, allowing the passage of fæces from above, and the patient, for a long time, be ignorant of any trouble. There is no blood in such actions. Eructation is a common and, often, distressing accompaniment of fæcal impaction, but vomiting does not occur till late, and is very rarely stercoraceous. Pain and tympanitis are also late symptoms. A tumor—which puts on pressure, can usually be felt by abdominal palpation, and, if the rectum be the site, the trouble can be diagnosed by digital examination.

In impaction by gall stones, there is usually, a history of previous colics, and fæcal vomiting, and pain occur early. Jaundice is not often met with and a tumor is rarely found. Constriction is diagnosed, by a history of previous dysentery, syphilis, tuberculosis, typhoid, etc., in addition to the general symptoms of the chronic form of the trouble.

Obstruction due to paralysis of the gut wall from traumatism or other cause is usually accompanied by paralysis of other parts; and is diagnosed by the history of such paralysis.

The *course* of the affection is variable—in acute cases ending in a few hours or extending over a week or two, about six weeks is the usual period. In chronic cases, the duration depends upon the cause. The *prognosis* is always grave, most cases ending fatally. In some cases, there is a possibility of spontaneous recovery, as when in intussusception the gangrenous portion is passed. One reason, probably, of the great fatality, is the long delayed surgical treatment. *Treatment* for the relief of intestinal obstruction, has been attempted in many ways—bullets in the sixteenth century, shot more recently; metallic mercury, purgatives, opiates, enemata, electricity, massage and laparotomy—as the result of experience, it is now conceded that in most cases, it is a waste of time to attempt alleviation by means of medical treatment and that as soon as diagnosis had been made, operative treatment should begin. Purgatives should not be used, but in the early stages the

administration of opium greatly relieves pain by checking peristalsis. It also lessens the vomiting, but it must be borne in mind that it obscures the symptoms. Enemata should be tried early, except, perhaps, in volvulus; although in most cases, little good may be expected. When these have been used, and the water returns unchanged, the vomiting continuing, operation is indicated. Washing out the stomach is useful in relieving nausea and lessening the tension of the bowel. In some cases, it has even proved curative.

For the relief of tympanitis, puncture of the gut through the abdominal wall with a trocar and camula, has been advised, but it is unsatisfactory, as, on account of the mobility of the gut, the portion below the obstruction may be punctured and there may result a septic peritonitis from failure of the gut walls to close perfectly. For this purpose, turpentine stupes may be tried, but are insufficient.

Mr. Jonathan Hutchinson, in the *Report of the British Medical Association's* meeting in 1893, advocates taxis for acute intestinal obstruction, claiming that in most cases, his results were excellent, whereas he knew of only one case cured by laparotomy. This method is, having anæsthetized the patient, to invert, and then, to forcibly push and shake the intestines from side to side, large enemata being given while the patient is inverted. Then the patient is to be thoroughly shaken by four strong men, first in the inverted position, then in the erect. In some cases, he saw no immediate results, but in an hour or two, the bowels moved, and all went well.

In the acute affection the food should not be administered by mouth, but only as nutrient enemata, otherwise, it is immediately vomited and adds to the patient's discomfort.

Medical treatment is often efficacious and sufficient in two forms—intussusception and fæcal impaction. Opium should be given in both cases, as it relieves the pain and vomiting, and in case of intussusception, prevents further invagination. Enemata should be fully used. In intussusception, the patient should be put in the knee-chest position, and a soft rubber tube inserted, water being slowly injected, the nurse pressing the buttocks together to prevent its escape. In fæcal impaction, continuous enemata for half an hour at a time, should be employed. These may be of soap water, oil, or turpentine and oil in the proportion of one ounce to the pint. Inflation with a bellows may be employed in cases of intussusception, instead of the injections of water, but care must be observed. The stomach should be washed in both cases, as it relieves vomiting and tension, and prevents the absorption of noxious matter. It has also proved curative.

For cases caused by paralysis, electricity and massage may be of benefit.

If relief is not speedily accomplished by measures indicated, operation should be performed.

Society Reports.

DISCUSSION.

Dr. Geo. Ben. Johnston wishes to emphasize one point in the paper—that concerning fæcal impactions. It is frequently overlooked; the symptoms being so obscure and misleading. The most common cause of fæcal impaction is prolonged sojourn in bed whether due to disease or operation. This is debilitating, and in these cases, there is also absence of irritating food. Usually, there is no complaint of constipation, but of diarrhoea, when continued, it is usually followed by tenismus, pressure on the uterus in the female, on the bladder in the male. Later in the course of the obstruction, there is a feeling of something in the bowel, and tenismus becomes distressful. One is apt to administer astringents; but the most superficial examination reveals the presence of a mass which is found very low in the rectum, the finger coming into contact almost immediately. Purgatives not only are of no benefit, but do harm; enemata are unsatisfactory. Excavation with the finger is the only satisfactory method of relieving. If necessary, the patient may be anaesthetized. One hand must press above the sigmoid flexure. Follow the operation by an enema of water and oil. Dr. Johnston says his routine, when winding up a case that has been a long time in bed, is to make an examination as described, and he often finds impaction. He reported the following case, seen in consultation with Dr. Warriner. Girl, age 13, anaemic suffering from complete constipation for five or six days. Paroxysmal pains, tenismus, mucus evacuations, persistent nausea, stercoraceous vomiting, emaciation marked, pulse and respiration increased. She suffered from insomnia and restlessness, was extremely nervous and unable to take food. Upon superficial examination, both he and Dr. Warriner diagnosed intussusception. A careful examination revealed a sausage-like tumor across the umbilicus, confirming their diagnosis. Laparotomy was determined upon, and while preparing for it, the child dozed. It was noticed while she slept, she would pluck a hair from her head, roll it into a little ball, put in her mouth and swallowed it. The mother said this was a habit. Doubtless, she had done it for years. So convinced, said the doctor, that the obstruction was due to a balus of hair that he did not operate. The tumor was situated in the transverse colon at this time. High injections of tepid water and epsom salt were begun. The first came back unstained; a repetition was colored. It was determined to continue the injections at intervals of two or three hours. In the meantime, sustaining treatment was prescribed. The following day, the staining was increased in amount. This convinced the doctors that the obstruction was not due to intussusception, but impaction, which had moved to the splenic flexure. The general condition was improved; nausea and vomiting had subsided; sleep was more peaceful and food

was retained. That night there came away a bolus of hair six inches long, three inches in circumference, and coated with hard fæcal matter. Two years afterward, the child was treated for threatened obstruction. Copious injections of castor oil brought away the bolus.

Dr. J. W. Henson reported a case of obstruction in a girl of 14 years. She had typhoid, and on the twenty-first day, there was intestinal hemorrhage. He was afraid to give purgatives. For two weeks from the time of hemorrhage, fever continued. However, in a few days, there were frequent passages of masses as large as a fist. Oil was then administered, and the character of the operations remained the same for three days. The oil was then stopped and improvement followed rapidly.

Dr. J. A. Hodges said he listened to the paper with interest; that it covered well the whole ground, but there was one remedy to which no reference was made. Belladonna pushed till its physiological action is manifest, is indicated in any kind of obstruction. In one case, operation was about to be performed when the belladonna, which had been administered previously, produced a movement. Enemata, said the doctor, are never properly administered except by the physician himself. They should always be used before operation is decided upon. The best is of kereosene oil of which he has used as much as a pint at a time. It is a lubricant and irritant. During the injections, the buttocks are held up for half an hour if need be, and it is wonderful to find how far the oil penetrates. If there is no tympanitis, taxis or massage may be employed to hasten its action. In the case of a brakeman who had no diarrhœa there occurred while attending to his duties, a sudden pain like that of hernia; but on examination nothing much was found. An enema brought nothing; when a coal-oil enema produced a small movement. On opening the abdomen, a commencing hernia was found. The strangulation was removed and the patient recovered. Soon after, obstruction recurred. This time, the oil gave relief. The doctor has never observed any bad effect from the oil.

Dr. W. W. Parker reported two cases of impaction, both in aged women, both requiring two days for their removal. One began in October and was not removed till the February following. In making post-mortems, the doctor had often found scybalæ where they were never suspected.

Dr. Henson reported that in the case of a girl of 7 years, he had used for five days purgatives and enemata without result. The contents of the abdomen could be felt, but no lumps were revealed. It was decided to remove her to the hospital for operation. Before doing so, belladonna was administered and the operation deferred, and for two days the use of the drug was continued producing movements which become regular. Enemata were also continued.

The President: Experiments show that the carbonate of sodium dissolves scybalæ. The hint is worth remembering. Alkaline remedies are solvents

and there is no reason why they should not be given for that action by the mouth. They act on the centre and sides of the mass at the same time.

Dr. J. S. Wellford finds enemata of strong solutions of salt very efficacious. He follows this administration by salts, senna and manna. He thinks we err in giving the solid extracts as they are of small bulk.

Dr. Edwards thinks ox gall injections efficacious. It acts better than all other remedies, combining a natural purgative and solvent. He uses a bladder for each injection.

Selected Papers.

IODOFORM-OINTMENT INJECTIONS IN THE TREATMENT OF SUPPURATIVE ADENITIS OF THE GROIN.

BY JAMES R. HAYDEN, M.D.

The chief objects to be obtained in the treatment of suppurating inguinal buboes are their rapid disappearance, an amelioration of pain, and the absence of a compromising scar in the groin.

To this end various surgical procedures have been suggested from time to time, but it was not until 1856, when Broca, Roux, Marchal, Abeille, and others advocated aspiration of the pus and injection of diluted tincture of iodine into the abscess cavity, that such favorable results were in a degree obtained.

1857 Lebert reported a number of successful cases treated in a similar manner, except that he evacuated the pus through a small incision and injected the pure tincture of iodine.

Again, in 1861, Teackle, speaks of this method as being remarkably successful, and quotes several cases in which he has employed it.

Scott Helm, in 1886, was, I believe, the first to substitute iodoform for tincture of iodine, and used it in the following manner:

The parts were cleansed and anæsthetized by means of ether spray, the pus was drawn off with a hypodermic, and the abscess cavity washed out with a weak solution of carbolic acid. Iodoform suspended in glycerine was then injected, the needle withdrawn and the puncture closed with collodion; over this an ordinary dressing and spica bandage were applied. Twenty-one cases were treated in this manner with but one failure.

Later, Helm substituted oleic acid for glycerin, and finally iodol for iodoform.

In 1889, Von Eichstöff reported a series of cases treated by injections of iodoform and ether which he employed in two different ways as follows:

First method. The pus was withdrawn and the cavity irrigated with boric acid solution, and then injected with the iodoform and ether mixture, the

puncture being covered with an ordinary dressing, which was left in place for three days. In some cases he had to make a second injection, but never a third. A cure was accomplished in from three to eight days.

Second method. The parts were cleansed and the iodoform-ether mixture injected directly into the abscess cavity without evacuating the pus. As a rule, two injections had to be employed before a cure was accomplished, which on an average took about twelve days.

In the same year Fontan described very minutely the treatment of suppurating buboes by injections of iodoform vaseline. He gives a total of forty-one cases so treated, the average time for cure being six to seven days. His method of procedure is as follows: The parts are shaved and cleaned; the bubo opened with a lancet and all the pus forced out; the abscess sac is then irrigated with diluted Van Swieten's fluid, and iodoform-vaseline injected with a glass syringe, previously warmed in hot water. A cold wet dressing is applied in order to congeal the ointment at the opening. In some cases it was necessary to resort to an injection a second time.

In 1893, W. K. Otis reported very favorable results in sixteen cases in which he used injections of iodoform ointment in a similar manner.

Having employed this plan of treatment with such satisfactory results, I feel justified in reporting the few cases so operated on; these were not selected, but taken at random as they entered the hospital and clinic. The steps in the procedure are similar to those advocated by Fontan, with the addition of the peroxide of hydrogen, and are as follows:

1. The operative field is shaved and rendered surgically clean in the usual manner.
2. A few drops of a 4 per cent. solution of cocaine are injected beneath the skin where the puncture is to be made.
3. A straight sharp-pointed bistoury is then thrust well into the most prominent part of the tumor until pus flows.
4. All of the pus is forced out through this opening by firm but gentle pressure, as this procedure is, as a rule, very painful.
5. The abscess cavity is irrigated with pure peroxide of hydrogen until it returns particularly clear.
6. It is then irrigated with 1:5000 bichloride of mercury solution, all of which is carefully squeezed out.
7. The now thoroughly cleansed abscess cavity is completely filled, but not painfully distended, with 10 per cent. iodoform ointment by means of an ordinary conical glass syringe, previously warmed in hot water.
8. A cold wet bichloride dressing is applied with a fairly firm spica bandage, the cold congealing the ointment at the wound, and thus preventing its escape into the dressing.

The patient should be kept very quiet for the first twenty-four to forty-eight hours, rest in bed being preferable, although not absolutely necessary.

The dressing is removed at the end of the third or fourth day and the parts examined; if pus has reaccumulated or the ointment escaped into the dressing, a second injection may be made. If, on the other hand, all looks well, the first dressing is replaced by a gauze pad and spica bandage, and the patient told to report in two or three days for examination.

In a few of the above series of cases several drops of an oily serous fluid were observed at the first dressing escaping from the puncture; this fluid was carefully wiped off and a sterilized gauze dressing applied, recovery being in no way retarded by the exudation.

The following table gives the etiology, amount of pus evacuated, number of injections employed, and time for cure in each case:

Case.	Etiology.	Amount of pus.	Number of Injections.	Result.
1	Gonorrhœa: chancroids	12 drachms.	One.	Cure in 14 days.
2	Gonorrhœa	4 "	One.	" 10 "
3	Chancroids	12 "	One.	" 14 "
4	Chancroids	3 "	Two.	" 7 "
5	Gonorrhœa	6 "	One.	" 14 "
6	Chancre: chancroids	11 "	One.	" 7 "
7	Chancre: chancroid	4 ounces.	One.	" 21 "
8	Chancre: chancroid	2 "	Two.	" 21 "
9	Chancroids	12 drachms.	One.	" 7 "
10	Chancroid	6 "	One.	" 14 "
11	Gonorrhœa	6 "	One.	" 8 "
12	Gonorrhœa	4 "	One.	" 10 "
13	Chancroid	3 "	One.	" 11 "
14	Gonorrhœa: chancroid	5 "	One.	" 12 "
15	Gonorrhœa	12 "	One.	" 12 "

Suppurative action and pain ceased after one injection of the iodoform ointment, except in two cases; in these the injection had to be repeated on account of a slight reaccumulation of pus.

None of the above cases were pronounced cured until firm pressure in the groin elicited neither pain nor fluctuation, and the overlying skin had resumed its normal appearance.

In order to secure the most favorable results from this method, it should only be employed when the glands are quite thoroughly broken down, so that the iodoform may come in direct contact with all of the infected tissues.

It is not, of course claimed that this method will succeed in every case of suppurative adenitis, but its many advantages over the more radical procedure render it, in my judgment, worthy of a trial. There is no necessity for the patient to remain in bed, or undergo anæsthesia; the little scar in the groin is soon covered by hair, and he or she is spared a more or less painful and tedious convalescence. If after one, two, or even three injections, this method fails to produce the desired result, an incision may then be made and the contents of the bubo removed; the previous treatment not having interfered in any way with this operation.

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Editorial.

Closing Year Thoughts.

With the present issue the JOURNAL closes its eighteenth year of existence and its first as a semi-monthly. When, a year ago, we began to issue the JOURNAL twice a month instead of once, we were not altogether without fear that this innovation on the part of a Southern journal might not meet with all the encouragement we felt the move deserved, and we considered it therefore more of an experiment than an established thing. The increased expense, including the addition of some one hundred and fifty pages of reading matter, was considerable, but was incurred without any increase in the subscription price.

We felt, however, that even if the additional subscription and advertising patronage did not neutralize the increased expenses, the satisfaction to ourselves and our readers would alone be worth the cost.

The experience of the past year has satisfied us that the move was a wise one. Increased subscription and advertising patronage have shown that our efforts have been appreciated, and the JOURNAL may be considered to have taken a permanent position among the more progressive journals of the country. As in the past, so in the future we will have the interests of our readers and advertisers constantly in mind, and will be ready at

all times to make such additions and improvements as will be for their benefit. Nor will we be unmindful of the duty we owe to the State Society, but will use our best efforts to maintain its dignity and promote its welfare. In this we hope to receive the support of every member of the Society and we believe we will not be disappointed. Let matters which affect the interests of the Society be talked over in the pages of the JOURNAL, which will always be at the service of any member who may have ideas to advance. The JOURNAL is proud of the distinction of being the official organ of the Society, and would gladly be more useful to the Society than it has been. Let the members

air their opinions as freely as they desire. Good will follow.

In closing the year we most sincerely thank those kind friends who have had words of approval and encouragement to offer us from time to time. Such evidences of friendship do much to lighten the tasks and smooth the paths of him who would do his duty conscientiously and are heartily appreciated. We do not forget that this number of the JOURNAL will reach you on the eve of the great Christian Festival, and we extend to our readers, one and all, our best wishes for their health, happiness and good cheer.

A Merry Christmas to you all!

Reviews and Book Notices.

The Bulletin of the American Academy of Medicine for December 1895, is devoted entirely to the subject of State Boards of Medical Examiners. Besides other interesting matter it gives a complete classification of the States with their various requirements for practice. This is a valuable number to be in the possession of all physicians. The *Bulletin* is published tri-monthly at \$3.00 a year.

Memoranda. E. B. Treat, publisher, New York, has in press for early publication the 1896 *International Medical Annual*, being the fourteenth yearly issue of this eminently useful work. Since the first issue of this one volume reference work, each

year has witnessed marked improvements; and the prospectus of the forthcoming volume gives promise that it will surpass any of its predecessors. It will be the conjoint authorship of forty distinguished specialists, selected from the most eminent physicians and surgeons of America, England and the Continent. It will contain reports of the progress of Medical Science at home and abroad, together with a large number of original articles and reviews on subjects with which the several authors are especially associated. In short, the design of the book is, while not neglecting the Specialist, to bring the General Practitioner into direct communication with those who are

advancing the Science of Medicine, so he may be furnished with all that is worthy of preservation, as reliable aids in his daily work. Illustrations in black and colors will be consistently used wherever helpful in elucidating the text. Altogether it makes a most useful, if not absolutely indispensable, investment for the Medical practitioner. The price will remain the same as previous issues \$2.75.

The Pathology and Surgical Treatment of Tumors. By N. Senn, M.D., Ph.D., LL.D., Professor of Practice of Surgery and Clinical Surgery, Rush Medical College; Professor of Surgery, Chicago Polyclinic; etc., etc. Illustrated by 515 engravings, including full-page colored plates. Royal octavo, 710 pages; cloth \$6.00, one-half morocco \$7.00; for sale by subscription only. W. B. Saunders, Philadelphia, 1895.

It is always with pleasure that we welcome anything from the pen of this distinguished American surgeon. In the volume under notice Dr. Senn has lost none of the logic, clearness and force that characterize his other writings, and the work will stand long as an authority on the special subject of which it treats.

There are few works devoted exclusively to this subject, and the textbooks, even the more voluminous systems of surgery, allot to this part of surgical pathology too little space by far. The more inviting fields of bacteriology and surgical technique are given the greater share of attention, but none will deny the great importance of a more thorough and practical knowledge of the nature of tumors than is possessed by the average physician.

The first part of this treatise is devoted to a general consideration of tumors, and it is this part which is intended more especially for the use of students. He draws clearly the dividing line between tumors and inflammatory swellings. "That tumors should have been confounded with inflammatory swellings before the essential causes of the latter were discovered and understood is not strange, but that these entirely different pathological processes should not be separated sharply at the present time is inexcusable." The work throughout is dotted here and there with some of the author's axioms appearing in italics. In this part are studied the origin and nature of tumors, their anatomy and biology and etiology, clinical aspects of benign as distinguished from malignant, the transformation of benign into malignant, and the diagnosis and treatment.

Then follows the section on classification, the author basing his classification into epiblastic, mesoblastic and hypoblastic on the origin of the tumor from cells of one of these embryonal layers. Retention cysts, which the author defines as "a swelling due to the retention in a pre-existing space of a physiological secretion by obstruction of the outlet of a gland" are not considered as tumors, and are discussed in a different and separate section of the book.

After the section on classification each class is taken up and the tumors treated individually beginning with epithelioma and ending with sarcoma. Under each is studied the etiology, histogenesis, clinical history, prognosis and treatment. The topogra-

phy of each is also given—the parts of the body which are more commonly affected by the different tumors. The various operations for the relief of benign and malignant tumors are

fully described and illustrated, and all the indications and contra-indications carefully considered. The illustrations are unusually helpful and are well executed.

Abstracts.

CASTRATION FOR ENLARGED PROSTATE.—Morton (Philadelphia Polyclinic) reports a successful case of castration for hypertrophied prostate. The patient, aged 71 years, was suffering from total retention and hemorrhage resulting from an attempt of his physician to pass a catheter. After drawing off the urine the prostate was found to be as large as an orange and exceedingly soft in consistency. Hemorrhage ceased after catheterization but recurred on each subsequent introduction of the instrument. The urine was black with decomposed blood, ammoniacal, and contained much pus and detritus. The difficulties attending the drawing off of the urine increased constantly until it became apparent that operative interference must be resorted to. The experimental nature of the operation was fully explained to the patient, and his consent in writing obtained. The operation was performed on August 28, 1895, and although catheterization had to be continued, bleeding ceased almost immediately after the operation and the urine began to clear up and become less decomposed. On August 30th it was entirely free from blood, pus and all other evidences of decomposition.

On the second day after operation he began to pass a portion of his urine. This amount steadily increased until one week later there was no residual urine, and the use of the catheter was discontinued. The prostate, by this time, had become reduced to the size of a hen's egg, and to normal consistency. On the 29th of October he was again examined and found to be in excellent health. He was urinating from four to six times daily, had no distress whatever, and was passing normal urine.

TAKA-DIASTASE—Dr. F. Lascar (*Therapeutic Gazette*) lays especial stress on the importance of a proper action of the digestive organs. Any irregularity in the process of digestion very soon becomes manifest, and dyspepsia, malnutrition and ill health follow. Science has succeeded fairly well in supplying gastric and pancreatic ferments for the digestion of proteids and fats, but our success has so far been only a very partial one in supplying starch converting substances. That diastase has an identical action with ptyalin upon starch is well known and the diastase contained in malt has been employed for this purpose; but even in the best ex-

tracts of malt there is only a limited and varying amount of diastase, so that while malt will continue to play an important rôle as a dietetic agent, its utility as a starch converting agent must remain a limited one. The writer recalls an extract of malt which was shown him by Mr. Takamine, a Japanese chemist, at the Cotton Exposition at New Orleans several years ago. Under the discoveries of Mr. Takamine a prominent pharmaceutical firm of this country are manufacturing a diastase, which is known commercially as taka-diastase. This product is a dry powder, very perfect in its action in converting starch into maltose and dextrose. He attributes this superior potency to the avoidance of undue heat in its preparation, an error which he warned against in 1891 as heat impairs, and is liable to even totally destroy the diastatic action of malt extract. As a result of experiments he finds that taka-diastase will convert one hundred and fifty times its own weight of starch into a soluble state, and moreover that the action is almost instantaneous. The product of the converted starch is maltose. Taka-diastase is a dry powder, tasteless and of no perceptible odor, and will prove of value in the feeding of infants where it is desirable to give starchy foods.

THE TREATMENT OF CERTAIN CASES OF INSOMNIA.—In view of the large number of hypnotics in the *materia medica* it has become possible for the physician to strictly individualize in his selection of remedies of this kind. This is, however, attended with greater difficulties than in any other branch

of therapeutics, for to select the proper hypnotic in any given case requires a careful investigation of the cause and nature of the insomnia. Any effort therefore to define more accurately the indications for the various hypnotics is worthy of more than ordinary attention. During the past ten years Drs. H. Breslau and J. Joachim (*Centralbl. f. d. ges. Therapie*, August 1895) have made a thorough study of this subject and the following represents the outcome of their observations with regard to the therapeutic indications of trional; if employed in the proper manner they consider this drug as among the best and least injurious of hypnotics. Administered in doses of 1.0-1.5 gm. it produces a quiet sleep of six to eight hours duration, the awaking from which is not, as a rule, attended with disagreeable after effects. During its continued use the dose should not exceed 2.0 gm. and a large single dose acts more effectively than repeated smaller doses. It is best given in 50 to 100 gm. of boiling water with addition of syrup rub. Idaeii, although it may also be administered in hot tea or hot lemonade. As trional is precipitated as soon as the fluid becomes cold, the latter should be taken as hot as possible. After being employed for four to six days, it should be discontinued for several days and during its prolonged administration it is advisable to let the patient drink 1 or 2 bottles of an albaline mineral water and to relieve constipation with enemata and laxatives. According to the experience of the above authors trional is an admirable hypnotic in cases of neurasthenic agrypnia, chronic de-

mentia and periodical mania, while in paralysis, conditions of melancholic depression and paranoia attended with hallucinations it exerted a decided sedative influence even in fractional doses (0.5 gm.).

NEW AND ORIGINAL METHOD OF OBTAINING MATERIAL FOR SKIN GRAFTING.—Dr. Zera J. Lusk (*Medical Record*, Dec. 7, 1895) describes an original method of obtaining material for skin grafting and reports a case of very extensive burns recovering under the treatment. The man had fallen into a pan of boiling brine and the burns are thus described: Both arms were completely stripped of epithelium, which hung in shreds about the wrists having been scraped down in his efforts to get out of the pan. The thick calloused skin of the palmar surface of both hands was torn and in shreds. The dorsal surface was covered with sacks full of serum. There was a raw, bleeding surface six inches wide extending from the left arm to the middle of the right scapula; one of the same nature and size covered the lumbar region. The buttocks were covered with large blisters, but more superficially. The skin on the lower extremities hung in shreds, bleeding in many places, especially about the knee and ankle joints. There were numerous small vesicles on the face and neck and erythematous patches over the chest and abdomen. The case seemed hopeless until February 11th, about a month after the injury, when favorable symptoms appeared. He was extremely emaciated and nearly a fourth of his body was a granulating sur-

face. The patient could not, and others would not supply material for grafts after Thiersch's method. One set of grafts were shaved from the horny skin on the hand of one of his companions, as recommended by Kibbler, but he refused to furnish a second supply. He then concluded to try grafts from the hard, dry epithelium which was left by the vesicles on the dorsum of the feet. It had been standing there, attached by one side to the foot, ever since the injury, about five weeks. A piece an inch square was softened and sterilized in warm boric-acid solution, divided into twelve grafts, and applied to the anterior granulating surface of the right thigh. Seven of the twelve grafts took, and rapidly developed into vigorous islands of skin. The subsequent treatment consisted in using this dried epithelial tissue, with the result that these large raw surfaces were covered with substantial skin by April 1st, about six weeks. The surface healed was nearly six hundred square inches.

He reports a second case in which a large leg ulcer was successfully grafted in one month by cuticle obtained from blisters produced by cantharides plaster. He notes the following observations: 1. The best results were obtained from the thin transparent epithelial tissue. It made no difference whether one or both edges were attached, just as satisfactory results followed the use of dried patches, with no attachment except at distal end of hairs. 2. The certainty of their attachment when properly applied, and rapid development. 3. The absence of cicatricial contrac-

tion, the skin being loose, and in many places, especially on back and thighs, so natural as to require close examination to discover its artificial nature.

SURGICAL SUGGESTIONS. *Syphilis of Larynx.*—An early diagnosis of syphilis of the larynx is important, as in this stage it can be satisfactorily treated, while neglected tertiary lesions are often incurable, except, perhaps, by radical surgical measures.—ANDERSON.

Examination of Virgines Intactæ.—The bimanual examination of *virginis intactæ* should always assume the form of a recto-abdominal palpation. There is no need in these cases of a vaginal examination; the finger in the rectum will teach us all we wish to know concerning uterus, tubes, and ovaries. The only difficulty to be overcome is to identify the cervix; a little practice will enable us to master this detail.—EDEBOHLS.

Intra-cranial Hemorrhage.—Intra-cranial hemorrhage is regarded as a very natural accident in Bright's disease, atheroma, and hemorrhagic pachymeningitis.

Tuberculous Iritis.—1. Tuberculous iritis must be distinguished from other varieties of iritis. 2. This form of iritis is premonitory of the appearance of tuberculous nodules elsewhere. 3. Its invasion is insidious, slow, and with but little local reaction, but is accompanied by numerous posterior synechiæ. 4. The absence of pathognomonic symptoms

makes the diagnosis difficult. 5. The tendency to spontaneous healing of miliary tuberculosis of the iris depends upon the natural resistance of the iris tissue. The encapsulation of the tubercle and the rapid obliteration of its nutrient capillaries favor its isolation and the protection of the healthy tissues.—VIGNET.

Shock is a disturbance of the functions of the nervous system, induced suddenly by a violent stimulation made directly on the nerve-centres, or indirectly through the peripheral nerves, whereby the harmony of action of the great nervous centres, more especially of the sympathetic ganglia, and through them of the various organs of the body, becomes deranged. It is essentially a depression of nerve-force, and bears in effect the same relation to the nervous system as syncope to the vascular.—CONNERY.

Black Eye.—There is nothing to compare with the tincture or strong infusion of capsicum annum mixed with an equal bulk of mucilage or gumarabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's-hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, this treatment will invariably prevent blackening of the bruised tissue. The same remedy has no equal in rheumatic stiff neck.

Dislocation of Ulnar Nerve.—Dislocation of the ulnar nerve at the elbow

is a comparatively rare affection, occurring independently of fractures or dislocations of the bones of the elbow, and may result from direct violence, or from muscular effort or violent flexion of the arm at the elbow, causing laceration of the fascia which holds the nerve in its groove at the back of the inner condyle of the humerus. The symptoms resulting from this injury—pain, tingling in the parts supplied by the ulnar nerve, and a certain amount of disability of the elbow—are usually more marked immediately after the injury, but the symptoms usually become less marked in a short time, in many cases very little permanent disability seems to follow, the nerve accustoming itself to its new position. Very rarely a neuritis is developed. In view of the possibility of the development of a neuritis, it seems wise to replace the dislocated nerve and fix it in its normal position as soon as possible after the injury. The most satisfactory method of securing the nerve seems to be that practised by Mr. MacCormick, who exposed the ulnar nerve, and having made a bed for the nerve by dividing the fibrous structures behind the inner condyle of the humerus, fixed it in its usual position by two kangaroo-tendon loops passed through the inner margin of the triceps tendon and somewhat loosely around the nerve; several sutures were also used to unite the divided margin of the fascial expansion of the triceps tendon superficial and the nerve. In all cases where the nerve was exposed and sutured in its normal position the result was satisfactory, and the dislocation did not re-

cur, and in no case is it recorded that neuritis developed in the nerve as a result of operative treatment.—WHARTON.—*Medical Record*.

RECENT ADVANCES IN CEREBRAL SURGERY--Von Bergmann (*Centralblatt für Chirurgie*, No. 27, 1895), at the German Surgical Congress, brought to notice certain advances that have recently been made in the department of cerebral surgery.

In cases of tumor of the brain, surgery has, of late, done very little beyond facilitating a correct diagnosis, and rendering operative interference less dangerous. In Jacksonian epilepsy surgical treatment is usually followed by a relapse, and a certain cure can only be effected in which the convulsions are due to the compression of a circumscribed cortical motor centre, as by tumor or cyst. On the other hand, decided progress has been made in the operative treatment of different forms of intracranial suppuration of otitic origin, such as cerebral abscess, epidural suppuration, infective thrombosis of the lateral sinus and leptomeningitis. The most dangerous forms of chronic aural suppuration, which is usually excited by a collection of cholestromata in the interior of the ear, are indicated by intercurrent acute and subacute attacks with fetid discharge, and by the presence of polypoid granulations in the tympanic cavity and the auditory meatus.

The extension of the inflammation through the thin and carious ligamentum tympani sets up a pachymeningitis, which in turn gives rise to an extradural or epitympanic abscess, or

to intradural or cerebral abscess. The cerebral abscess, when small, and in an early stage of development, is situated on the surface of the brain, but as it enlarges it sinks into the substance of the affected lobe. As the diagnosis between a superficial and epitympanic abscess on the one hand, and a cerebral abscess on the other, is attended with much difficulty, the author holds that in performing an operation it is necessary to expose both the extradural abscess and the part of the temporal bone most likely to be involved in the extension of the suppurated process. An operation is described by which the upper and anterior surface of the petrosal bone through a quadrangular opening made in the squamous portion of the temporal bone, just above the line of the zygoma, and between a line in front drawn directly upward to the sagittal suture from the tragus and a parallel line behind carried upward from the posterior border of the mastoid process. By this wound the mastoid antrum and cells may be opened when necessary and the sigmoid fossa reached. In conclusion, the author alludes to the successful surgical treatment of infective thrombosis of the lateral sinus.

Exposure and incision of the sinus with ligature of the internal jugular vein proved successful in six out of thirteen cases treated by Jansen, of Berlin. These cases added to those of Macewen and other surgeons showed that the operative treatment resulted in recovery in twenty-seven out of forty-five patients. Thrombosis of the lateral sinus is often associated with an extradural abscess

on the roof of the tympanic cavity, and in most cases of cerebellar abscess forms a communication between this collection of pus and the supuration in the middle ear. In exposing the outer surface of the mastoid process and the bone lying behind this, search should be made for the mastoid emissary vein. Not only is the orifice a good guide to the sinus, but in addition, the state of the vessel may aid in the diagnosis. If it contains pus, suppuration in and about the lateral sinus is indicated, if it be blocked by a thrombus, this will be a sure sign of thrombosis extending into the cavernous sinus. The author attributing much of the recent progress in cerebral surgery to improvements in technical details and in the instruments, makes use of an electric circular saw with which he divides the outer table, while the inner table is divided by the careful use of a chisel.—*University Medical Magazine*.

TREATMENT OF DIABETES.—Robin (*Bulletin de l'Académie de Médecin*, No. 23, 1895) employs what he terms an "alternating treatment" in diabetes. He believes that in this disease there is an increased activity of the chemical changes of general nutrition, and of the hepatic cells in particular, which is the result of increased activity of the nervous system. Hence he recommends drugs which diminish the activity of these general changes by acting primarily on the nervous system. The treatment is divided into three stages: (1) For four days a powder, containing about fifteen grains of antipyrin and eight grains of sodium bicarbonate, is given twice

a day. In addition cod-liver oil is taken twice a day, and Seignette salt as a morning purgative. (2) At the end of four or five days the antipyrin is discontinued, sulphate of quinine prescribed,—six grains in a cachet at the mid-day meal. This is taken for six days, then discontinued for four days, and afterwards taken again for six days. Before the morning and evening meals a cachet is recommended containing arsenate of soda, carbonate of lithium, and codeia. (3) After fifteen days these drugs are discontinued, and the author prescribes, for ten days, a pill containing opium, belladonna, and valerian. The cod-liver oil is discontinued and the patient is allowed to drink a weak solution of bicarbonate of soda 1 in 125. In the case of nervous women, or if there should be intolerance of the opium and belladonna pills, fifteen grains of potassium bromide are given two or three times a day for eight days. In addition to the medical treatment the diet is regulated. On account of the loss of inorganic salts in diabetes the author recommends the food to be well salted; to supply potassium salts he advises green vegetables, especially cabbage and endive, and also a weak solution potassium tartrate to dilute the wine taken at meals; and to counteract the loss of phosphates of magnesia. He also recommends bouillon on account of the inorganic salts which it contains. If sugar is still present in the urine after the third stage of the medical treatment above mentioned the course is recommenced. After a second course, whether sugar has disappeared or not, the drugs are dis-

continued for one month. Robin has treated by this alternating method 100 cases of diabetes, in each of which the daily quantity of sugar excreted was 100 grammes or more. In twenty-four of these recovery has occurred; in twenty-five recovery is still doubtful; in thirty-three there has been considerable and permanent improvement; in eighteen the results have been negative.—*Medical Record*.

VAGINAL SECTION AND DRAINAGE FOR PELVIC ABSCESS.—Watkins (*American Journal of Obstetrics*, August, 1895), in a paper read before the Chicago Gynecological Society, May 24, 1895, reports a number of cases where he has performed vaginal section and thus drained a pelvic abscess with the best results. The operation is indicated.—

(1) When the condition of the patient is such as to make abdominal section extremely dangerous.

(2) When the abscess is large, of long standing, and situated low in the pelvis, and when the patient gives a history of peritonitis.

(3) When abdominal section reveals extensive and firm intestinal adhesions.

(4) When the abscess is on the floor of the pelvis and is complicated by rectal fistulæ.

(5) Vaginal section may be indicated for the separation of adhesions which fix the ovaries and tubes on the floor of the pelvis, and for examination of the ovaries and tubes.

(6) Puerperal abscess. These abscesses frequently involving the tubes and ovaries, and satisfactory results usually follow through drainage of them.

The writer has done vaginal section for pelvic abscess nineteen times, and in every case the result has been relatively satisfactory. In two cases operations for secondary abscesses were required; in one case abdominal section was necessary to complete the operation. Excepting in the two cases which developed additional or secondary abscesses, the temperature became practically normal within a short time, and the patients have been out of bed at the end of two weeks. Many of the operations are of too recent date to permit a satisfactory report of the ultimate success, but some date back three years. None of the patients, to his knowledge, suffered especially from pelvic disease after the operation. Three have some enlargement to the left of the uterus, which may later on require abdominal section, and two of them have a sinus. The advantages of the operation are,—

- (1) It is not dangerous to life.
- (2) It is followed by little or no suffering.
- (3) Recovery is rapid.
- (4) No raw surfaces are left in the abdominal cavity to cause adhesions.

The objections to the operation are,—

- (1) It is applicable in only a small per cent. of the cases of pelvic abscess.

- (2) Diseased tissue is not removed.

The tissue may, however, become normal after the abscess is opened and drained, as has frequently been the case after spontaneous rupture or puncture of the abscess. The nature of the abscess must be considered in

selecting this method of treatment. For example, tubercular or gonorrhœal abscesses indicate excision more than abscesses due to some other infection. Watkins believes this operation should take the place of vaginal puncture or aspiration, since there is less danger of injury to the bladder, rectum, or some other portion of the intestinal tract. He has seen two cases where large blood-vessels have been injured with a fatal result. He advises vaginal section rather than celiotomy and secondary vaginal puncture, saying that celiotomy could be immediately performed if necessary. Vaginal section is performed as follows: The uterus is dilated, the uterine cavity explored, curetted, irrigated, and packed with gauze, if indicated. An incision about one inch long through the vaginal wall is made near the cervix, opposite the most prominent point of the tumor, —usually posteriorly. All connective tissue between the vaginal wall and the abscess is separated with the finger, or it may be necessary to divide some of the fascia with scissors. Careful exploration is then made determining whether the peritoneal cavity has been opened, and if so, it should be carefully walled off with gauze packing. The finger is then passed directly into the abscess, using a blunt instrument, if necessary. All pus is removed by thorough irrigation with sterilized water. Two drainage-tubes sutured together, one large and one small, are inserted and fastened to the cervix by sutures. Drainage should be continued as long as there is any discharge.

Correspondence.

ALVARENGA PRIZE.

To the Editor:

The College of Physicians of Philadelphia annouces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Sefior Alvarenga, and amounting to about \$180, will be made on July 14, 1896, provided that an Essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in Medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1896.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within it the name and address of the author.

It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award.

The Alvarenga Prize for 1895 has been awarded to Dr. Guy Hinsdale, of Philadelphia, for his Essay entitled "SYRINGOMYELIA."

CHARLES W. DULLES,
Secretary.

DECEMBER, 8, 1895.

To the Editor:

In the last copy of the NORTH CAROLINA MEDICAL JOURNAL appeared an

editorial on the subject of examination fees for insurance companies, and their attempted reduction. I send you resolutions adopted October 8, 1895, by the Kershaw County Medical Association, of which I am Secretary.

"WHEREAS the New York Life, the Equitable and other life insurance companies, have issued circulars to examiners, wherein they announce a reduction of the fees for examination from \$5.00 to \$3.00 in certain cases; and

WHEREAS the fee for all such examinations has been long placed by the Kershaw County Medical Association at \$5.00; and

WHEREAS there is as much trouble and care necessary for the examination in applications for \$1,000 policies as for \$10,000 or \$50,000 policies, be it

Resolved 1. That this Association declines to make any examinations for these or any other companies for less than the amount required in our fee-bill—\$5.00.

2. That a copy of these resolutions be sent to the companies making the aforesaid reduction."

Adopted unanimously.

At the same meeting the Association adopted resolutions, refusing to attend to post mortems for the county coroner, unless arrangements should be made by which a reasonable fee will be paid, the fees allowed by law being ridiculously low.

Respectfully,
JNO. W. CORBETT, M.D.

Miscellaneous Items.

Under this head space will be given (free of cost) to those paid-up subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editor.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

MARINE HOSPITAL SERVICE.

From November 28, 1895, to December 11, 1895.

The leave of absence granted Capt. William B. Banister, assistant surgeon, is extended one month.

The leave of absence granted First Lieut. James M. Kennedy, assistant surgeon, is extended two months.

Capt. Charles E. Woodruff, assistant surgeon, now on leave of absence is ordered to proceed from Washington, D. C., to Fort Snelling, Minn., and report for temporary duty without delay.

Maj. Richard S. Vickery, surgeon, is retired from active service this date, December 7, 1895.

Capt. Freeman V. Walker, assistant surgeon, is by direction of the President, wholly retired from the service this date, December 4, 1895.

Capt. William H. Arthur, assistant surgeon, is relieved from duty at Fort Columbus, New York, and ordered to Fort Myer, Virginia, for duty.

The leave of absence granted First Lieut. John S. Kulp, assistant surgeon, is hereby extended one month.

THE NAVY.

For two weeks ending December 7, 1895.

December 2.—Assistant Surgeon George C. Hubbard, detached from instruction at the Naval Laboratory, New York, and ordered to the "Vermont."

Passed Assistant Surgeon E. R. Stitt, detached from the "New York" and ordered to the Coast Survey steamer "Bache."

Passed Assistant Surgeon G. H. Barber, detached from the "Bache" and ordered to the "New York."

THE ARMY.

For the week ending November 30, 1895.

November 26.—Surgeon F. Anderson, detached from the "Amphitrite" and ordered to the "Dolphin."

Surgeon P. M. Rixery, detached from the "Dolphin" and placed on waiting orders.

Surgeon J. E. Gardner, detached from Port Royal Station and ordered to the "Amphitrite."

Passed Assistant Surgeon I. W. Kite, detached from the "Franklin" and ordered to the Naval Hospital, New York.

Passed Assistant Surgeon T. A. Berryhill, detached from the Naval Hospital New York, and ordered to the Port Royal Naval Station.

NECROLOGY.

SOME RECENT DEATHS AMONG PHYSICIANS.

Richmond Lennox, M.D., Brooklyn, Nov. 11.

W. Herbert Dunlap, M.D., Syracuse, N. Y., Nov. 11.

Thomas Flowmoy, M.D., Richmond, Va., Nov. 20.

Elman H. Borst, M.D., Newburgh, N. Y., Nov. 8.

Wm. Starbuck Mayo, M.D., New York, N. Y., Nov. 22.

Benj. Cushing, M. D., Boston, Oct. 16.

Cary B. Blackburn, M. D., Louisville, Ky., Dec. 4.

Milton R. Cook, M. D., of Ashtabula, O., one of the oldest practitioners in the county, died in jail, where he was confined, pending trial upon the charge of performing a criminal operation.—*Jour. Am. Med. Asso.*

J. Edwin Michael, M. D., Baltimore, Md., Dec. 7. Dr. Michael was one of the foremost physicians of Baltimore and the South. He was the Dean of the University of Maryland, and President of the Medical and Chirurgical Faculty of Maryland. He was 47 years of age and cause of death was nephritis.

J. H. Wintrobe, M. D., Marklesburg, Pa., Nov. 17.

D. M. Miller, M. D., Elizabeth, N. J., Dec. 3.

John A. Jones, M. D., Mansfield, O., Dec. 3.

A bill for the establishment of a Bureau of Public Health has been introduced in the House of Representatives by Mr. Mahon of Pennsylvania.

We are pleased to see it announced that sufficient subscriptions have been received to insure the revival of the *Index Medicus*.

THE PRACTICE OF SUBSTITUTION.—This is a growing evil, which, however, we believe, is not as common in this State as in some others, especially in the North and West. When a physician prescribes a certain preparation either by special name or by adding the initials of the manufacturer, he has his reason for doing so and the druggist has no

right to dispense any other preparation. If he has not in stock the article called for he should either decline the prescription, procure the article from some other druggist, or get the authority of the physician to substitute some other preparation.

With the purpose of breaking up the custom we will expose those who are guilty of the practice on receipt of sufficiently convincing evidence of their guilt. We ask the assistance of our readers in this endeavor. If you have been the victim of this practice send us the name of guilty party, with all the evidence, duly signed and sworn to and we will give publicity to the transaction. We believe that all doctors, honest druggists, manufacturers of legitimate preparations, and the public will be benefited by our action in this matter. It would also be well for those druggists who have been in the habit of using their own judgment in this matter to mend their ways for the future.

Dr. Gleaves, in the *Medical Record*, page 715, reports the case of a girl 10 years and 2 months old giving birth to a well-formed child. She had menstruated from the age of 5 years. The labor was short and uneventful. The mammary glands were not developed, and the grandmother nursed the infant, which lived a week.

Dr. D. S. Rowland has removed from Bobbitt to Kittrell, N. C.

Dr. R. L. Payne, of Lexington, has been sojourning a few weeks in the metropolis where he makes his headquarters at the Polyclinic. He

reports as the latest fad in New York, the custom of dropping into the scrotum a celluloid testicle for its æsthetic effect after castration. He thinks this ahead of the wooden nutmeg.

Married. Dr. Charles T. Harper, and Miss Jessie Glenora, daughter of Mr. and Mrs. Geo. H. Zimmermann, were married on the 18th inst. at Fulton Avenue Presbyterian church, Baltimore. They will reside at 219 No. Fulton Ave. and will be "at home after January 5, 1896." We extend the doctor and his bride our heartiest congratulations and good wishes.

HUMANE POLICE CLUB.—Somebody has invented a policeman's club which has a rubber envelope and a wood core. Messieurs the thugs, will be pleased to know that when this humane club is once in the hands of our guardians of the peace, there will be no more cracked skulls. The near approach of the millenium is thus foreshadowed. As usual, we learn that the new esthetic weapon has been tried upon a dog. His dogship, naturally enough, on regaining his canine wits, wagged his tail and in his own way expressed his pleasure in having been knocked out in so pleasant and altogether humane a way.—*Jour. Am. Med. Asso.*

BANQUET AND PRESENTATION IN HONOR OF JOHN S. BILLINGS, M.D., LL.D.—A dinner was given at the Hotel Bellevue, Philadelphia, November 30th, in honor of John S. Billings, by the American subscribers to the Billings Testimonial. Dr. S.

Weir Mitchell, as chairman of the Committee, presided, and having made the presentation speech, placed in Dr. Billings' hands a silver box containing \$10,000, and having engraved upon it, "To John S. Billings, from 259 physicians of the United States and Great Britain in grateful recognition of his services to medical scholars." On the side of the box there is, in Latin, a statement to the effect that he who has made a catalogue of a great library has created a memory of the wisdom and learning of the past.

In conclusion Dr. Mitchell said: "In offering this box to my old friend, and the gentleman you desire to honor to-night, I would say that while the silver box contains this practical recognition of his services it also contains something more, as my imagination figures it. You all remember that phrase of Dr. Johnson's 'Wealth beyond the dreams of avarice.' There is, as I think of it, within this box, for an imaginative man, that wealth which represents the good feeling, the friendly opinions, the thankfulness, of the scholarship of two continents. Also I may say that this wealth represents a noble avarice, of that kind which my friend has shown all his life—a desire to be loved and respected by those in our profession whom men most rightly honor."—*Boston Medical and Surgical Journal.*

WOODEN DIAGNOSIS WITH UP-TO-DATE THERAPEUTICS.—Certain medical men of London, are said by *Popular Science* to be breaking up the patent medicine business. Certain

wooden figures have been put up on the nickel-in-the-slot principle. The figures are shaped like a man, with holes in every part of the body labeled with the diseases that usually affect that part. For headache you find the proper slot so labeled in the head of the figure, and drop in a penny; out comes an inexpensive but efficient prescription that can be filled by any druggist. These prescriptions are said to be gotten up by prominent doctors and are very good and useful. One object of this device is to make medicine cheaper to the poor and restrict the use of dangerous proprietary mixtures. The notice reads more like a bit of journalistic enterprise than a fact.—*Jour. Am. Med. Asso.*

The St. Louis Academy of Medical and Surgical Sciences was organized on November 6, 1895. The constitution of the society subscribes to the code of ethics of the American Medical Association. The membership is limited to fifty.

No one can become a member of the Academy unless he possesses a good literary and medical education. As evidence of his literary qualifications and ability as a scientific worker he must deposit with his application, a thesis, a pathological specimen with descriptive text, a drawing of a normal or abnormal specimen with text, or some other evidence of his worth. The evidence is passed upon by the committee on credentials. If the evidence is accepted, the ballot is taken. Two negative votes will defeat a candidate. The following officers were elected for the ensuing year:

President, Geo. W. Cale, Jr., M.D., F.R.M.S., London; Senior Vice-President, James Moores Ball, M.D.; Junior Vice-President, Arthur E. Mink, M.D.; Secretary, Emory Lamphear, M.D., Ph.D.; Treasurer, Wellington Adams, A.M., M.D.; Orator, Thomas O. Summers, A.M., B.S., M.R.C.S., Eng., M.D.; Curator, George Howard Thompson, A.M., M.D.

USE OF THE VERMIFORM APPENDIX. The vermiform appendix is rich in lymphoid or adenoid tissue, which suggests the possibility of its being the center for the production of leucocytes or lymphocytes, writes Dr. D. A. Sutherland in *London Lancet*. Elsewhere in the alimentary canal the importance of adenoid tissue is fully recognized, and the action of the lymphocytes produced there has been fully explained. According to Berry's researches, the function of the appendix is, (1) leucocyte producing, and (2) secretory. Leucocytes he considers useful in the destruction of micro-organisms and the absorption of proteids. Such protective power would be of great service, for processes of decomposition going on unchecked in the cæcal region would probably result in symptoms of auto-intoxication that would be extremely common. With appendicitis regarded as a purely local condition, due to such local causes as catarrh, concretion, cystic dilatation, etc., the author thinks it also quite possible that the vermiform appendix may be acted upon by poison circulating in the blood and thus become acutely or chronically inflamed. Rheumatism may be such a poison.—*Jour. Am. Med. Asso.*

A bill to regulate the practice of medicine in the District of Columbia, has been introduced into the Senate by Senator Harris.

The American Medical Review has made its appearance, the initial number having just been received. It is in magazine shape, double column and the first number contains sixty-four pages. The *Review* promises well and we have no doubt will keep its promise. Under the section devoted to "medical progress" it provides an interesting epitome of the medical literature of the preceding month. It has sections devoted to medical society reports, book reviews, professional opinion, personals and a very valuable "index medicus" of original articles appearing in American medical journals. It is cheap at \$1.00 a year.

MILITARY WAR TRAINS.—The Canadian Pacific Railway, after many months of labor, has constructed at

enormous cost two special military or war trains, comprising fourteen cars for men, two cars for cooking, two Pullman cars for officers, two cars for arms and stores, and two dining cars. The officers' cars are luxuriously fitted out, and contain state rooms, lavatory, smoking room. etc. Each train is composed of eleven cars and engine, and gives ample sleeping accommodations for 306 men and 15 officers, although over 100 more men could find room. The men's cars are well finished and furnished with modern improvements. The kitchen car has all the utensils of a large-sized hotel, and requires six cooks and two helpers. This one car can turn out over one thousand five hundred meals a day. During a trip from Halifax to Vancouver on the war train, 5,500 meals for officers and men were prepared. The Canadian Pacific Railway expect to cover the distance from the Atlantic to the Pacific in five and a half days.—*British Medical Journal*.

Reading Notices.

A PICK ME UP.—Dr. John Van Renselaer Hoff, Major and Surgeon, United States Army, says: "I believe that malt extracts meet a therapeutic indication, and that Maltine is an admirable form of this remedy, as well as an excellent vehicle for several generally used medicines. I have long used Maltine with Cascara Sagrada with signal benefit in chronic constipation. Recently I have been trying Maltine with Coca Wine quite extensively, and have found it admir-

able as a 'pick me up' in debilitated cases."—*From the Northwestern Lancet, November 1, 1895.*

D. T. Hudgens, M.D., Elizabeth, Ark., says: I have used S. H. Kennedy's Extract of *Pinus Canadensis* in leucorrhea with very good results. I have had under my treatment Mrs. S., age 33 years, for leucorrhea, with anteversion of the uterus. I used the White Extract per vagina as a local treatment for the leucorrhea,

and the treatment was attended with success. I am satisfied that *Pinus Canadensis* should occupy a prominent position in our *materia medica*.

LACTOPHENIN.—Landowsky (*Sem. Med.*, Feb. 7th, *Med. Record*) has tried the effect in several cases, of lactophenin, a substance very closely allied chemically to phenacetin. This drug has antineuralgic properties analogous to antipyrin, and has, besides, a genuine hypnotic effect. The amount given daily was from sixty centigrammes to three grammes divided into several doses. The only disagreeable by-effects caused by the drug seemed to be diaphoresis and slight giddiness in a few of the patients.

SIX HUNDRED (\$600) DOLLARS IN PRIZES.—The special attention of our readers is called to the advertisement of the Palisade Manufacturing Co., with the above title which will appear in our next issue.

The prize contest which this well known firm announces will no doubt attract a great deal of attention, and result in the submission of many articles of merit on "The Clinical Value of Antiseptics both Internal and Ex-

ternal." The prizes are extremely liberal, and the well known professional and literary eminence of Dr. Frank P. Foster, the talented editor of the "New York Medical Journal," who has kindly consented to act as judge, is a sufficient guarantee of the impartiality to be observed in the awarding of the prizes.

We are assured that there is absolutely "no string" attached to the provisions of this contest, and any physician in good standing in the community is invited to compete on equal terms with every other competitor.

Further particulars as to conditions etc., can be obtained by addressing the above named firm.

J. H. Egan, M.D., in the *Medical Summary*.—*Spasmodic Croup*.—I have treated four cases with the Vaporizer and Vapo-Cresolene. Case 1. Aged 30. Has had frequent attacks previously. Called at 2 a. m. In two hours she was well. Case 2. Aged 9. Called at 1 a. m. Her father said she would die unless at once relieved. In ten minutes after I lit the lamp under the Vaporizer she was out of danger. The other two cases were equally satisfactory.

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